

Omnibus Energy Legislation, 108th Congress: Comparison of Non-Tax Provisions in the H.R. 6 Conference Report and S. 2095

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Summary

House and Senate conferees approved an omnibus energy bill (H.R. 6, H.Rept. 108-375) on November 17, 2003, and the House approved the measure the following day (246-180). However, on November 21, 2003, a cloture motion to limit Senate debate on the conference report failed (57-40). On February 12, 2004, Senator Domenici introduced a revised version of the bill (S. 2095) with a lower estimated cost and without a controversial provision on the fuel additive MTBE. Major non-tax provisions in the conference measure and S. 2095 include:

Ethanol. An increase in ethanol production to 3.1 billion gallons annually by 2005 and 5 billion gallons by 2012 would be mandated. However, states could petition for a waiver if the mandate would have severe economic or environmental repercussions, other than loss of revenue to the highway trust fund.

MTBE. Methyl tertiary butyl ether (MTBE), a gasoline additive widely used to meet Clean Air Act requirements, has caused water contamination. The conference bill would ban the use of MTBE by 2015 with some possible exceptions, provide funds for MTBE cleanup, and provide protection for fuel producers and blenders of renewable fuels and MTBE from defective product lawsuits. The liability protection was not included in S. 2095.

Electricity. In part, the electricity section would repeal the Public Utility Holding Company Act (PUHCA) and establish mandatory standards for interstate transmission. Standard market design (SMD) would be remanded to the Federal Energy Regulatory Commission (FERC); no rule would be allowed before the end of FY2006.

Alaska Gas Pipeline. The bill would provide \$18 billion in loan guarantees for construction of a natural gas pipeline from Alaska to Alberta, where it would connect to the existing midwestern pipeline system.

Energy Efficiency Standards. New statutory efficiency standards would be established for several consumer and commercial products and appliances. For certain other products and appliances, DOE would be empowered to set new standards. For motor vehicles, funding would be authorized for the National Highway Traffic Safety Administration (NHTSA) to set Corporate Average Fuel Economy (CAFE) levels as provided in current law.

Energy Production on Federal Lands. Royalty reductions would be provided for marginal oil and gas wells on federal lands and the outer continental shelf. Provisions are also included to increase access by energy projects to federal lands.

For a discussion of the tax provisions in the bills, see CRS Issue Brief IB10054, *Energy Tax Policy*. This report will not be updated.

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Introduction

Continuing a legislative effort that began in the 107th Congress, House and Senate conferees on November 17, 2003, reached agreement on an omnibus energy bill (H.R. 6, H.Rept. 108-375), which would be the first comprehensive energy legislation in more than 10 years. On November 18, the House approved the conference report by a vote of 246-180, but on November 21, a cloture motion to limit debate in the Senate failed, 57-40. On February 12, 2004, Senator Domenici introduced a revised version of the bill (S. 2095) with a lower estimated cost and without a controversial provision on the fuel additive MTBE. Including tax provisions, S. 2095 is estimated by its supporters to cost less than \$14 billion, in contrast to the \$31 billion estimated for the H.R. 6 conference report.

The two bills contain identical provisions to change the regulatory requirements for the wholesale electric market, including repeal of the Public Utility Holding Company Act (PUHCA). They would also mandate increasing levels of ethanol production through 2012 but allow regions to opt out under certain conditions. Use of methyl tertiary butyl ether (MTBE) as a domestic gasoline additive would be banned by the end of 2014, but the President could void the ban and a state could authorize continued use. Under the H.R. 6 conference report, producers of MTBE and renewable fuels would be granted protection (a “safe harbor”) from product liability lawsuits, but that provision was dropped in S. 2095.

Both bills would provide \$18 billion in loan guarantees for construction of a natural gas pipeline from Alaska to Alberta, where it would connect to the existing Midwestern pipeline system. Royalty reductions would be provided for marginal oil and gas wells on federal lands and the outer continental shelf. Provisions are also included to increase access by energy projects to federal lands.

Several new statutory efficiency standards would be established for consumer and commercial products and appliances, and other standards could be set by the Department of Energy (DOE). For motor vehicles, funding would be authorized for the National Highway Traffic Safety Administration (NHTSA) to set Corporate Average Fuel Economy (CAFE) levels as provided in current law.

The House version of H.R. 6, which passed April 11, 2003, included a key component of the Bush Administration’s energy strategy: opening the Arctic National Wildlife Refuge (ANWR) to oil and gas exploration and development. But the Senate version, passed July 31, 2003, did not include the ANWR language, and the conference report and S. 2095 would leave ANWR off-limits to drilling.

This report summarizes the major non-tax provisions of the H.R. 6 conference agreement and notes the changes included in S. 2095. **Table 1** lists annual funding authorizations in the bills, which total about \$71 billion over 10 years. (The likely cost of the funding authorizations has not yet been estimated by the Congressional Budget Office.) For a discussion of the tax provisions in the bills, see CRS Issue Brief IB10054, *Energy Tax Policy*.

For a comparison of the House and Senate versions of H.R. 6, see CRS Report RL32033, *Omnibus Energy Legislation (H.R. 6): Side-by-side Comparison of Non-tax Provisions*. Many provisions in the H.R. 6 conference report are similar to those of an omnibus energy bill that the Senate debated but did not pass, S. 14. For a comparison of major provisions of S. 14 and the House and Senate versions of H.R. 6, see CRS Report RL32078, *Omnibus Energy Legislation: Comparison of Major Provisions in House- and Senate-Passed Versions of H.R. 6, Plus S. 14*.

Major Non-Tax Provisions

Electricity Regulation

Historically, electric utilities have been regarded as natural monopolies requiring regulation at the state and federal levels. The Energy Policy Act of 1992 (EPACT, P.L. 102-486) removed a number of regulatory barriers to electricity generation in an effort to increase supply and introduce competition, but further legislation has been introduced and debated to resolve remaining issues affecting transmission, reliability, and other restructuring concerns.

In part, the electricity section of the conference report and S. 2095 would repeal the Public Utility Holding Company Act (PUHCA) and establish mandatory reliability standards. Standard market design (SMD), a proposed system to provide uniform market procedures for wholesale electric power transactions, would be remanded to the Federal Energy Regulatory Commission (FERC); no rule would be allowed before the end of FY2006. The Department of Energy (DOE) would identify “transmission corridors” that require new construction or upgrading. The bills would grant eminent domain authority to the federal government for construction of interstate power lines on these transmission corridors if the states did not act in time.

(For a discussion of the policy context and current law, see CRS Report RL32178, *Summary of Electricity Provision in the Conference Report on H.R. 6*. For additional discussion on these issues, see CRS Report RL32728, *Electric Utility Regulatory Reform: Issues for the 109th Congress*; and CRS Report RL32133, *Federal Merger Review Authority*.)

Renewable Fuel Standard and MTBE

The H.R. 6 conference report and S. 2095 would amend the Clean Air Act to eliminate the requirement that reformulated gasoline (RFG) contain 2% oxygen to reduce automotive emissions, a requirement which prompted the widespread use of MTBE (methyl tertiary butyl ether) and, to a lesser degree, ethanol. Instead, the bills would establish a new requirement that an increasing amount of gasoline contain renewable fuels such as ethanol. The bills would require that 3.1 billion gallons of renewable fuel be used in 2005, increasing to 5.0 billion gallons by 2012 (as compared to 2.1 billion gallons used in 2002). However, concerns have been raised that this requirement could significantly raise the pump price for gasoline in some areas.

Because of concerns over drinking water contamination by MTBE (a major competitor with ethanol), the bills would ban the use of MTBE in motor vehicle fuel, except in states that specifically authorize its use, not later than December 31, 2014. The ban has two possible exceptions. First, EPA may allow MTBE in motor fuel up to 0.5 percent by volume, in cases that the Administrator determines to be appropriate; and second, the President may make a determination, not later than June 30, 2014, that the restrictions on the use of MTBE shall not take place. The bills would also authorize \$2.0 billion to assist the conversion of merchant MTBE production facilities to the production of other fuel additives. Further, the bills would preserve the reductions in emissions of toxic substances achieved by the RFG program.

One of the most controversial provisions in the H.R. 6 conference report is the establishment of a “safe harbor” from product liability lawsuits for producers of MTBE and renewable fuels. The safe harbor provision—which was excluded from S. 2095—would protect anyone in the product chain, from manufacturers down to retailers, from liability for cleanup of MTBE and renewable fuels or for personal injury or property damage based on the nature of the product. (That legal approach has been used in California to require refiners to shoulder liability for MTBE cleanup.) The safe harbor would be retroactive to September 5, 2003. Prior to that date, five lawsuits had

been filed. After that date, at least 150 suits were filed, on behalf of 210 communities in 15 different states.

(For additional information, see CRS Report RL32865, *Renewable Fuels and MTBE: A Comparison of Selected Legislative Initiatives*; CRS Report RL30369, *Fuel Ethanol: Background and Public Policy Issues*; and CRS Report RL32787, *MTBE in Gasoline: Clean Air and Drinking Water Issues*.)

Motor Vehicle Fuel Economy

One of the first initiatives designed to have a significant effect on oil demand was passage of corporate average fuel economy standards (CAFE) in the Energy Policy and Conservation Act of 1975 (EPCA, P.L. 94-163). In the years since, there have been periodic calls for toughening or broadening the CAFE standards—especially as consumer demand has turned more to light-duty trucks and sport utility vehicles (SUVs).

A final rule mandating higher CAFE standards for light-duty trucks was issued April 1, 2003, by the National Highway Traffic Safety Administration (NHTSA), but congressional interest in the issue continues. The bill reported from conference and S. 2095 would require a CAFE study, would prescribe several considerations that must be weighed in determining maximum feasible fuel economy, would authorize \$2 million annually during FY2004-FY2008 for NHTSA rulemakings and CAFE analysis, and would extend the existing fuel economy credit for the manufacture of alternative-fueled vehicles.

(For additional information, see CRS Issue Brief IB90122, *Automobile and Light Truck Fuel Economy: The CAFE Standards*.)

Nuclear Accident Liability

Reauthorization of the Price-Anderson Act nuclear liability system is one of the top nuclear items on the energy agenda. Under Price-Anderson, commercial reactor accident damages are paid through a combination of private-sector insurance and a nuclear industry self-insurance system. Liability is capped at the maximum coverage available under the system, currently about \$10.9 billion. Price-Anderson also authorizes the Department of Energy to indemnify its nuclear contractors. The limit on DOE contractor liability is the same as for commercial reactors, except when the limit for commercial reactors drops because of a decline in the number of covered reactors.

The H.R. 6 conference agreement and S. 2095 would provide a 20-year extension of Price-Anderson to the end of 2023. The nuclear industry contends that the system has worked well and should be continued, but opponents charge that Price-Anderson's liability limits provide an unwarranted subsidy to nuclear power. The conference report would also authorize the Nuclear Regulatory Commission (NRC) to issue new regulations on nuclear power plant security and would require force-on-force security exercises.

Another nuclear provision in the bills is a \$1.1 billion authorization for a nuclear-hydrogen cogeneration project at the Idaho National Engineering and Environmental Laboratory. In the tax title, the conference agreement—but not S. 2095—would provide a tax credit of 1.8 cents per kilowatt-hour for electricity generated by new nuclear power plants, if the plants were placed in service by 2020 and did not exceed a total capacity of 6,000 megawatts.

(For more information, see CRS Issue Brief IB88090, *Nuclear Energy Policy*.)

Renewable Energy and Efficiency

The H.R. 6 conference report and S. 2095 would legislate new energy efficiency standards for several consumer and commercial products and appliances. For certain other products and appliances, DOE would be empowered to set new standards. Also, the bills would provide increased funding authorizations for the DOE weatherization program and establish a voluntary program to promote energy efficiency in industry.

However, neither bill includes one of the top priorities of environmental groups: a renewable portfolio standard (RPS), which would have required retail electricity suppliers to obtain a minimum percentage of their power from a portfolio of new renewable energy resources. The Senate version of H.R. 6 would have established an RPS starting at 1% in 2005, rising at a rate of about 1.2% every two years, and leveling off at 10% in 2019.

(For additional information, see CRS Issue Brief IB10020, *Energy Efficiency: Budget, Oil Conservation and Electricity Conservation Issues*, and CRS Issue Brief IB10041, *Renewable Energy: Tax Credit, Budget, and Electricity Production Issues*.)

Arctic National Wildlife Refuge

The congressional debate over whether to open the Arctic National Wildlife Refuge (ANWR) to oil and gas leasing has continued for more than 30 years. H.R. 6 as passed by the House would have authorized oil and gas exploration, development, and production in ANWR, with a 2,000-acre limit on production and support facilities. The Senate-passed bill did not include ANWR provisions. The Administration strongly urged that the House ANWR language be included in the conference bill. However, once it became apparent that there were insufficient votes in the Senate to pass an energy bill with ANWR provisions, the managers decided to leave ANWR out of the final conference bill and S. 2095.

Proponents of exploring ANWR point to advances in exploration and drilling technology and methods that have significantly reduced the extent of surface disturbance caused by oil and gas activities. While opponents concede this may be so, they argue that the bill does not impose adequate requirements in this regard, that surface disturbance represents only one of many environmental impacts, and that considerable risk to the environment remains during all phases of development. Some opponents, citing ANWR's pristine character, argue that its ecology and habitat should not be disturbed under any circumstances.

(For additional information, see CRS Issue Brief IB10136, *Arctic National Wildlife Refuge (ANWR)*, and CRS Report RL31115, *Legal Issues Related to Proposed Drilling for Oil and Gas in the Arctic National Wildlife Refuge*.)

Domestic Energy Production

The Department of the Interior (DOI) has estimated that roughly a quarter of oil resources and less than one-fifth of gas resources on Indian lands have been developed. The H.R. 6 conference report and S. 2095 would allow Indian tribes to enter into business agreements with energy developers without obtaining prior approval from the Department of the Interior, but only if DOI has already approved the tribe's regulations governing such energy agreements.

To encourage production on federal lands, royalty reductions would be provided for marginal oil and gas wells on public lands and the outer continental shelf. Provisions are also included to increase access to federal lands by energy projects—such as drilling activities, electric transmission lines, and gas pipelines.

Alaska Gas Pipeline

Alaska's North Slope currently holds 30 trillion cubic feet of undeveloped proven natural gas reserves, about 18% of total U.S. reserves. The Alaska gas reserves have not been developed due to the high cost of building and operating the transportation infrastructure to reach distant markets. The H.R. 6 conference bill and S. 2095 would provide \$18 billion in loan guarantees for constructing an Alaska gas pipeline. The tax section of S. 2095 would also provide a tax credit for Alaska gas producers if prices fell below a certain level.

Hydrogen Fuel Initiative

The H.R. 6 conference bill and S. 2095 would authorize \$2.1 billion for FY2004-2008 for President Bush's hydrogen initiative and establish a goal of producing hydrogen vehicles by 2020. Critics of the Administration suggest that the hydrogen program is intended to forestall any attempts to significantly raise vehicle CAFE standards, and that it relieves the automotive industry of assuming more initiative in pursuing technological innovations. On the other hand, some contend that it is appropriate for government to become involved in the development of technologies that could address national environmental and energy goals but are too risky to draw private-sector investment.

(For additional information, see CRS Report RS21442, *Hydrogen and Fuel Cell R&D: FreedomCAR and the President's Hydrogen Fuel Initiative*; and CRS Report RL32196, *A Hydrogen Economy and Fuel Cells: An Overview*.)

Selected New Provisions in H.R. 6 Conference Bill

Several significant non-tax provisions in the H.R. 6 conference report are not found in the House and Senate versions of the bill. The following is a partial list and brief description of such new provisions.

Hydropower

Section 246: Corps of Engineers Hydropower Operation and Maintenance Funding. The administrators of power marketing administrations could transfer receipts to the Army Corps of Engineers for operations and maintenance activities at facilities assigned to them. This provision was not included in S. 2095.

Energy on Federal Lands

Section 316: Alaska Offshore Royalty Suspension. The Secretary of the Interior could reduce or eliminate oil and gas royalty or net profit shares in planning areas of offshore Alaska.

Section 317: Oil and Gas Leasing in the National Petroleum Reserve in Alaska. The competitive leasing system for oil and gas in the National Petroleum Reserve in Alaska would be modified, allowing the Secretary of the Interior to grant royalty reductions if they were found to be in the public interest.

Section 329: Outer Continental Shelf Provisions. For applications to build deepwater ports, the Secretary of Transportation could use environmental impact statements or other studies prepared by other federal agencies instead of conducting separate studies.

Section 352: Renewable Energy on Federal Lands. A five-year plan would be prepared to encourage renewable energy development.

Section 356: Finger Lakes National Forest Withdrawal. All federal land within the boundary of Finger Lakes National Forest in the state of New York would be withdrawn from entry, appropriation, or disposal under public land laws and disposition under all laws relating to oil and gas leasing.

Section 358: Federal Coalbed Methane Regulation. States would be encouraged to reduce impediments to coalbed methane development.

Nuclear Energy

Section 634: Fernald Byproduct Material. DOE-managed material in the concrete silos at the Fernald uranium processing facility would be considered byproduct material, which DOE would dispose of in an NRC- or state-regulated facility.

Section 635: Safe Disposal of Greater-than-Class-C Radioactive Waste. DOE would designate an office with the responsibility for developing a comprehensive plan for permanent disposal of the most concentrated category of low-level radioactive waste.

Section 637: Uranium Enrichment Facilities. The Nuclear Regulatory Commission (NRC) would be required to issue a final decision on a license to build and operate a uranium enrichment facility within two years after an application is submitted, and procedures for handling the facility's waste would be established.

Section 638: National Uranium Stockpile. The Secretary of Energy would be authorized to create a national low-enriched uranium stockpile.

Section 662: Fingerprinting for Criminal Background Checks. The existing requirement that individuals be fingerprinted for criminal background checks before receiving unescorted access to nuclear power plants would be extended to individuals with unescorted access to any radioactive material or property that could pose a health or security threat.

Section 668: NRC Homeland Security Costs. Except for the costs of background checks and security inspections, NRC homeland security costs would not be recovered through fees on nuclear power plants and other licensees.

Section 928: Security of Reactor Designs. DOE's Office of Nuclear Energy, Science, and Technology would be required to carry out a research and development (R&D) program on technology for increasing the safety and security of reactor designs.

Section 929: Alternatives to Industrial Radioactive Sources. After studying the current management of industrial radioactive sources and developing a program plan, DOE would be required to establish an R&D program on alternatives to large industrial radioactive sources.

Energy Efficiency and Renewables

Section 703: Credits for Medium and Heavy-Duty Dedicated Vehicles. Vehicle fleets operated by states and alternative fuel providers could claim extra credits for purchasing medium- and heavy-duty vehicles dedicated to running on alternative fuels.

Section 915: Distributed Energy Technology Demonstration Program. DOE would be authorized to provide financial assistance to consortia for demonstrations to accelerate the use of distributed energy technologies in highly energy-intensive commercial applications.

Section 916: Reciprocating Power. DOE would be required to create a program for fuel system optimization and emissions reduction after-treatment technologies for industrial reciprocating engines, including retrofits for natural gas or diesel engines.

Section 920: Concentrating Solar Power Research and Development Program. DOE would be required to conduct an R&D program on using concentrating solar power to produce hydrogen.

Section 965: Western Hemisphere Energy Cooperation. DOE would be directed to conduct a cooperative effort with other nations of the Western Hemisphere to assist in formulating economic and other policies that increase energy supply and energy efficiency.

Electricity

Section 1222: Third-Party Finance. The Western Area Power Administration (WAPA) and the Southwestern Power Administration (SWPA) would be able to either continue to design, develop, construct, operate, maintain, or own transmission facilities within their region or participate with other entities for the same purposes if specified criteria were met.

Section 1227: Office of Electric Transmission and Distribution. Statutory authority would be provided for the DOE Office of Electric Transmission and Distribution.

Section 1275: Service Allocation. FERC would be required to review and authorize cost allocations for non-power goods or administrative or management services provided by an associate company that was organized specifically for the purpose of providing such goods or services.

Offshore Energy Revenue Sharing

Section 1412: Domestic Offshore Energy Reinvestment. A portion of the federal revenues from offshore energy activities would be given to affected coastal states to fund specified activities.

Tennessee Valley Authority

Sections 1431-1434: Changes to Board of Directors and Staff Appointments. The presidentially appointed TVA Board of Directors would be expanded from three to nine, and the Board would hire a chief operating officer to take over day-to-day management.

Environmental Regulation

Section 1443: Attainment Dates for Downwind Ozone Nonattainment Areas. Clean Air Act deadlines would be extended for areas that have not attained ozone air quality standards if upwind areas “significantly contribute” to their nonattainment.

Section 1445: Use of Granular Mine Tailings. The EPA Administrator would be directed to establish criteria for the safe and environmentally protective use of lead and zinc mine tailings in northeastern Oklahoma for cement or concrete projects, and for federally funded highway construction projects.

Alternative and Reformulated Fuels

Section 1513: Cellulosic Biomass and Waste-Derived Ethanol Conversion Assistance. The conference report would allow the Secretary of Energy to provide grants for the construction of ethanol plants. To qualify, the ethanol must be produced from cellulosic biomass, municipal solid waste, agricultural waste, or agricultural byproducts. A total of \$750 million would be authorized for FY2004 through FY2006. Neither the House nor the Senate version contained any similar provision.

Section 1514: Blending of Compliant Reformulated Gasolines. This provision would allow reformulated gasoline (RFG) retailers to blend batches with and without ethanol as long as both batches were compliant with the Clean Air Act. In a given year, retailers would be permitted to blend batches over any two 10-day periods in the summer months. Currently, retailers must drain their tanks before switching from ethanol-blended RFG to non-ethanol RFG (or vice versa). The House and Senate versions contained no similar provision.

Organization of Report

The remainder of this report provides a section-by-section summary of the non-tax provisions of the conference version of H.R. 6. Sections that were excluded from S. 2095 are shown in italics, and new language is shown in boldface.

The sections are listed in numerical order, with section numbers that have been changed in S. 2095 shown in parentheses. Some of the most controversial sections are discussed in greater detail, while multiple sections that deal with a single program have been combined. Funding authorizations, including changes made by S. 2095, are shown in **Table 1** at the end of the report.

The following analysts in the CRS Resources, Science, and Industry Division contributed to this report:

- Amy Abel, electric utilities;
- Anthony Andrews, DOE management;
- Robert Bamberger, energy security;
- Carl Behrens, hydropower;
- Claudia Copeland, Federal Water Pollution Control Act;
- Lynne Corn, ANWR;
- Carol Glover, Native American energy, general authorizations;
- Mark Holt, nuclear energy;
- Marc Humphries, federal energy leasing, coal;
- Larry Kumins, oil and gas;
- Erika Lunder, state energy incentive authority;
- Jim McCarthy, Clean Air Act, MTBE;
- Dan Morgan, science programs;
- Larry Parker, Clean Air Act;
- Kyna Powers, hydropower;
- Mark Reisch, ozone, mine tailings;
- Fred Sissine, conservation and renewable energy;
- Mary Tiemann, underground storage tanks, drinking water;
- Brent Yacobucci, motor fuels;
- Jeff Zinn, Coastal Zone Management Act.

Title I—Energy Efficiency

Subtitle A — Federal Programs

Section 101: Energy and Water Saving Measures in Congressional Buildings

The Architect of the Capitol would be required to plan and implement an energy and water conservation strategy for congressional buildings that would be consistent with that required of other federal buildings. An annual report would be required. Up to \$2 million would be authorized. Section 310 of the Legislative Branch Appropriations Act of 1999 called for the Architect of the Capitol (AOC) to develop an energy efficiency plan for congressional buildings.

Section 102: Energy Management Requirements

The baseline for federal energy savings would be updated from FY1985 to FY2001 and a new goal of 20% reduction would be set for FY2013. At that time, DOE would be directed to assess progress and set a new goal for FY2023. Section 202 of Executive Order 13123 uses FY1985 as the baseline for measuring federal building energy efficiency improvements and calls for a 35% reduction in energy use per gross square foot by FY2010.

Section 103: Energy Use Measurement and Accountability

Federal buildings would be required to be metered or sub-metered by late 2010, to help reduce energy costs and promote energy savings.

Section 104: Procurement of Energy-Efficient Products

Statutory authority would be created to require federal agencies to purchase products certified as energy-efficient under the Energy Star program or energy-efficient products designated by the Federal Energy Management Program (FEMP). Currently, Section 403 of Executive Order 13123 directs federal agencies to purchase life-cycle cost-effective Energy Star products.

Section 105: Energy Saving Performance Contracts

Federal agencies would be empowered to continue using energy savings performance contracts (ESPCs) indefinitely. Section 801(c) of the National Energy Conservation Policy Act (NECPA, P.L. 95-619) provides for federal use of ESPCs through the end of FY2002.

Section 106: Energy Savings Performance Contracts Pilot Program for Non-Building Applications

The Department of Defense and other federal agencies would be authorized to enter into up to 10 energy savings performance contracts for non-building applications. The payments to be made by the federal government could not exceed \$200 million for all such contracts combined.

Section 105 (107): Voluntary Commitments to Reduce Industrial Energy Intensity

DOE would be authorized to form voluntary agreements with industry sectors or companies to reduce energy use per unit of production by 2.5% per year. While there is no current statutory authority, industry energy efficiency programs have been in place, such as the former Climate Wise program at the Environmental Protection Agency (EPA).

Section 106 (108): Advanced Building Efficiency Testbed

DOE would be required to create a program to develop, test, and demonstrate advanced federal and private building efficiency technologies.

Section 107 (109): Federal Building Performance Standards

DOE would be directed to set revised energy efficiency standards for new federal buildings at a level 30% stricter than industry or international standards. Mandatory energy efficiency performance standards for federal buildings are currently set in Section 305(a) of P.L. 94-385 and implemented through 10 CFR Part 435.

Section 108 (110): Increased Use of Recovered Mineral Component in Federally Funded Projects

Federally funded construction projects would be required to increase the procurement of cement and concrete that used recovered material.

Subtitle B—Energy Assistance and State Programs

Section 121: Low Income Home Energy Assistance Program (LIHEAP)

Increased funding would be authorized for the LIHEAP grant program for FY2004 through FY2006. Department of Health and Human Services funding for LIHEAP is currently authorized through FY2003 in the Human Services Authorization Act of 1998.

Section 122: Weatherization Assistance

Increased funding would be authorized for the DOE weatherization grant program for FY2004 through FY2006.

Funding for the program is currently authorized through FY2003 under 42 U.S.C. 6872.

Section 123: State Energy Programs

New requirements would be set for state energy conservation goals and plans. Also, increased funding would be authorized for FY2004 through FY2006 for DOE state energy grant programs.

Section 124: Energy-Efficient Appliance Rebate Programs

DOE would be authorized to fund rebate programs in eligible states to support residential end-user purchases of Energy Star products.

Section 125: Energy-Efficient Public Buildings

A grant program would be created for energy-efficient renovation and construction of local government buildings.

Section 126: Low Income Community Energy Efficiency Pilot Program

A pilot energy-efficiency grant program would be created for local governments, private companies, community development corporations, and Native American economic development entities.

Subtitle C—Energy-Efficient Products

Section 131: Energy Star Program

DOE and EPA would be given statutory authority to carry out the Energy Star program, which identifies and promotes energy-efficient products and buildings.

Section 132: HVAC Maintenance Consumer Education Program

DOE would be required to implement a public education program for homeowners and small businesses that explained the energy-saving benefits of improved maintenance of heating, ventilating, and air conditioning equipment. Also, the Small Business Administration would be directed to assist small businesses in becoming more energy-efficient.

Section 133: Energy Conservation Standards for Additional Products

DOE would be directed to issue a rule that determined whether efficiency standards should be set for standby mode in battery chargers and external power supplies. Also, energy efficiency standards would be set by statute for exit signs, traffic signals, torchieres (floor lamps), and distribution transformers (electric utility equipment). Further, DOE would be directed to issue a rule that prescribed efficiency standards for ceiling fans, vending machines, commercial refrigerators and freezers, unit heaters (fan-type heaters, usually portable), and compact fluorescent lamps.

Section 134: Energy Labeling

The Federal Trade Commission (FTC) would be required to consider improvements in the effectiveness of energy labels for consumer products. Also, DOE or FTC would be directed to prescribe labeling requirements for products added by this section of the bill. The FTC is currently required by Section 324(a) of the Energy Policy and Conservation Act (P.L. 94-163) to issue rules for energy efficiency labels on consumer products (42 U.S.C. 6294).

Subtitle D—Public Housing

Section 141: Capacity Building for Energy-Efficient, Affordable Housing

Activities would be required that would provide energy-efficient, affordable housing and other residential measures under the HUD Demonstration Act.

Section 142: Increase of CDBG Public Services Cap for Energy Conservation and Efficiency Activities

The amount of community development block grant (CDBG) public services funding that could be used for energy efficiency would be increased to 25%. The current limit is 15% under Section 105(a)(8) of the Housing and Community Development Act of 1974.

Section 143: FHA Mortgage Insurance Incentives for Energy-Efficient Housing

Solar energy equipment can be eligible for up to 30% of the total amount of property value that can be covered by Federal Housing Administration mortgage insurance. The current limit is 20% under Section 203(b)(2) of the National Housing Act.

Section 144: Public Housing Capital Fund

The Public Housing Capital Fund would be modified to include certain energy and water use efficiency improvements. Under Section 9 of the United States Housing Act, the Capital Fund is available to public housing agencies to develop, finance, and modernize public housing developments and to make management improvements to these housing facilities. There is currently no provision for energy conservation projects that involve water-conserving plumbing fixtures and fittings.

Section 145: Grants for Energy-Conserving Improvements for Assisted Housing

HUD would be directed to provide grants for certain energy and water efficiency improvements to multifamily housing projects. Section 2(a)(2) of the National Housing Act, as amended by Section 251(b)(1) of the National Energy Conservation Policy Act, empowers HUD to make grants for energy conservation projects in public housing, but it has no provision for energy- and water-conserving plumbing fixtures and fittings.

Section 146: North American Development Bank

The North American Development Bank would be encouraged to finance energy efficiency projects.

Section 147: Energy-Efficient Appliances

Public housing agencies would be required to purchase cost-effective Energy Star appliances.

Section 148: Energy-Efficient Standards

The energy efficiency standards and codes that the federal government encourages states to use would be changed from the codes set by the Council of American Building Officials to the 2000 International Energy Conservation Code.

Section 149: Energy Strategy for HUD

The Secretary of Housing and Urban Development would be required to implement an energy conservation strategy to reduce utility expenses through cost-effective energy-efficient design and construction of public and assisted housing.

Title II—Renewable Energy

Subtitle A — General Provisions

Section 201: Assessment of Renewable Energy Resources

DOE would be required to report annually on resource potential, including solar, wind, biomass, ocean (tidal, wave, current, and thermal), geothermal, and hydroelectric energy resources. DOE would be required to review available assessments and undertake new assessments as necessary, accounting for changes in market conditions, available technologies, and other relevant factors. The resource potential for renewables has not been assessed as thoroughly as that for conventional energy resources and the potential may be altered somewhat by climate change.

Section 202: Renewable Energy Production Incentive

Eligibility for the existing incentive would be extended through 2023 and expanded to include electric cooperatives and tribal governments. Qualifying resources would be expanded to include landfill gas. Federal law currently provides a 1.5 cent/kwh incentive for power produced from wind and biomass by state and local governments and non-profit electrical cooperatives.¹ The incentive is funded by appropriations to DOE and was created to encourage public agencies, which are not eligible for tax incentives, in a fashion parallel to the renewable energy production tax credit for private sector businesses (Section 1302). This incentive has played a major role in wind energy development and is viewed by the wind industry as the single-most important provision in the bill. The Senate version would have added incremental hydro and ocean energy to the list of eligible resources.

Section 203: Federal Purchase Requirement

Federal agencies would be required, to the extent “economically feasible and technically practicable,” to purchase power produced from renewables. The collective total percentage of renewables use, as a share of total federal electric energy use, would start at 3% in FY2005, rise to 5% in FY2008, and then reach 7.5% in 2011 and all subsequent years. Renewable energy produced at a federal site, on federal lands, or on Indian lands would be eligible for double credit toward the purchase requirement. This provision aims to help develop the market for renewables. A report to Congress would be required every two years.

Section 204: Insular Areas Energy Security

This section includes congressional findings that electric power transmission and distribution lines in insular areas are not adequate to withstand hurricane and typhoon damage, and that an assessment is needed of energy production, consumption, infrastructure, reliance on imported energy, and indigenous sources of energy in insular areas. Federal law currently requires comprehensive energy plans for insular areas that describe the potential for renewable energy resources.² This section would require the Secretary of the Interior, in consultation with the Secretary of Energy and the head of government of each insular area, to update insular area plans to reflect these findings, and to seek to reduce energy imports by increasing energy conservation and energy efficiency and by attempting to maximize the use of indigenous resources. Annual appropriations would be authorized that would, in part, be used for matching grants for projects

¹ Energy Policy Act, Sec. 1212 (42 U.S.C. 13317)

² 42 U.S.C. 1492.

designed to protect electric power transmission distribution lines in one or more of the territories of the United States from damage caused by hurricanes and typhoons.

Section 205: Use of Photovoltaic Energy in Public Buildings

The General Services Administration (GSA) would be authorized to encourage use of solar photovoltaic energy systems in new and existing buildings. This provision aims to help reduce costs and, thereby, stimulate the market for photovoltaic equipment.

Section 206: Grants to Improve the Commercial Value of Forest Biomass

The Secretaries of Agriculture and the Interior would be authorized to make grants of up to \$20 per green ton (a ton of freshly sawed or undried wood or other biomass) to individuals, businesses, communities, and Indian tribes for the commercial use of biomass for fuel, heat, or electric power. Also, the Secretaries of Agriculture and the Interior may make grants as an incentive to projects that develop ways to improve the use of, or add value to, biomass. Preference is given to small towns, rural areas, and areas at risk of damage to the biomass resource. This provision attempts to address the increasing risk of wildfires and the growing threat to forests of insect infestation and disease.

Section 207: Federal Procurement of Biobased Products

This provision amends the existing requirement³ that federal agencies give procurement preference to items composed of the highest percentage of biobased products practicable by adding a specific reference to degradable six-pack rings.⁴

Subtitle B—Geothermal Energy

Sections 211-227: Geothermal Energy Leasing Amendments

Much of the nation's geothermal energy potential is located on federal lands. Reducing delays in the federal geothermal leasing process and reducing royalties could increase geothermal energy production, although the environmental impact of greater geothermal development is also an issue.

Current Law

Competitive geothermal lease sales are based on whether lands are within a known geothermal resource area (Geothermal Steam Act of 1970, U.S.C. 1003). Geothermal production on federal lands is charged a royalty of 10%-15% under Section 5 of the Geothermal Steam Act. The royalty is imposed on the amount or value of steam or other form of heat derived from production under a geothermal lease.

The Secretary of the Interior can withdraw public lands from leasing or other public use and modify, extend, or revoke withdrawals under provisions in the Federal Land Policy and Management Act of 1976 (FLPMA, 43 U.S.C. 1714). At certain intervals the Secretary may readjust terms and conditions of a geothermal lease, including rental and royalty rates. Annual rental fees of not less than \$1 per acre on geothermal leases are paid in advance. The primary

³ 7 U.S.C. 8201(c)(1) gives preference to procurement of items made with highest percentage of biobased products.

⁴ 42 U.S.C. 6914b-1 provides for use of naturally degradable material in plastic ring carriers to help reduce litter and to protect fish and wildlife.

lease term is 10 years and shall continue as long as geothermal steam is produced or used in commercial quantities. Rents are \$1 per acre or fraction thereof for each year of a geothermal lease.

Conference Agreement

Amendments to the Geothermal Steam Act would change lease procedures for competitive and non-competitive lease sales. Competitive lease sales would be held every two years. If there were no competitive bid, then lands would be made available for two years under a non-competitive process (**Sec. 212**). A fee schedule in lieu of any royalty or rental payments would be established for low-temperature geothermal resources. Existing geothermal leases may be converted to leases for direct utilization of low-temperature geothermal resources (**Sec. 213**). Royalties from geothermal leases would be 3.5% of the gross proceeds from geothermal electricity sales and 0.75% of the gross proceeds from the sale of items produced from direct use of geothermal energy. **This section takes effect on October 1, 2004. (Sec. 214).** A memorandum of understanding between the Secretaries of the Interior and Agriculture should include provisions that would identify known geothermal areas on public lands within the National Forest system and establish an administrative procedure that would include time frames for processing lease applications (**Sec 215**).

The Secretary the Interior would review all areas under moratoria or withdrawals and report to Congress on whether the reasons for withdrawal still applied (**Sec. 216**). The Secretary could reimburse lessees for the costs of environmental analyses required by the National Environmental Policy Act of 1969 (NEPA, 30 U.S.C. 1001 et seq.) through royalty credits under certain circumstances. **This section's effective date is changed from the date of enactment to October 1, 2004. (Sec. 217).** The U.S. Geological Survey (USGS) would provide Congress with an assessment of current geothermal resources (**Sec. 218**). Cooperative or unit plans for geothermal development would be promoted (**Sec. 219**). Leasable minerals produced as a byproduct of a geothermal lease would pay royalties under the Mineral Leasing Act (30 U.S.C. 181) (**Sec. 220**).

Sections 8(a) and (b) of the Geothermal Steam Act would be repealed, which would eliminate the Secretary's authority to readjust geothermal rental and royalty rates at "not less than 20 year intervals beginning 35 years after the date geothermal steam is produced" (**Sec. 221**). Annual rentals would be credited towards the royalty of the same lease (**Sec. 222**), and the primary lease term could be extended for two additional five-year terms if work commitments were met (**Sec. 223**). If production from a geothermal lease were suspended during a period in which a royalty was required, royalties would be paid in advance until production resumed (**Sec. 224**). The conference agreement would establish rental rates for competitive and non-competitive lease sales (**Sec. 225**). A joint report within two years would be submitted to detail the differences between the military geothermal program and the civilian geothermal program, including recommendations for legislation or administrative actions to improve the effectiveness of the program (**Sec. 226**). About two dozen technical amendments are included in **Section 227**.

Subtitle C—Hydroelectric

Section 231: Alternative Conditions and Fishways

Under the Federal Power Act (FPA, 16 U.S.C. 797 et. seq.) the Federal Energy Regulatory Commission (FERC) has primary responsibility for balancing multiple water uses and evaluating hydropower relicensing applications. However, the FPA also creates a role in the licensing process for federal agencies that are responsible for managing fisheries or federal reservations

(e.g. national forests, etc.). Specifically, sections 4(e) and 18 of the FPA give certain federal agencies the authority to attach conditions to FERC licenses. For example, federal agencies may require applicants to build passageways through which fish can travel around the dam, schedule periodic water releases for recreation, ensure minimum flows of water for fish migration, control water release rates to reduce erosion, or limit reservoir fluctuations to protect the reservoir's shoreline habitat. Once an agency issues such conditions, FERC must include them in its license. While these conditions often generate environmental or recreational benefits, they may also require construction expenditures and may increase costs by reducing operational flexibility.

Reflecting recommendations by FERC and the hydropower industry, both the House and Senate versions of H.R. 6 included provisions to alter federal agencies' license-conditioning authority. The conference bill includes the House language. It would establish new requirements for federal agencies that set conditions or fishway requirements for hydroelectric licenses under sections 4(e) and 18 of the Federal Power Act. License applicants could initiate a trial-type hearing on factual issues related to an agency's conditions. Federal agencies would have to consider alternative conditions proposed by the license applicant and accept a proposed alternative if it would provide for the adequate protection and utilization of a federal reservation, and would either cost less or improve a project's operational efficiency. An agency would have to justify its decision to accept or to reject the alternative after giving equal consideration to both conditions' effects on a broad range of factors. The bill would also establish a system for reviewing an agency's decision if it rejected the applicant's alternative.

Section 241: Hydroelectric Production Incentives

The Secretary of Energy would make incentive payments to non-federal owners or operators of hydroelectric facilities for power that is first produced within 10 years of the date of enactment by generating equipment added to existing facilities. Payments of 1.8 cents per kilowatt-hour (kWh), up to a total of \$750,000/year, may be made for up to 10 years from the first year after the facility begins operating.

Section 242: Hydroelectric Efficiency Improvement

The Secretary of Energy would make incentive payments to the owners or operators of hydroelectric facilities who make capital improvements on existing facilities that improve efficiency by at least 3%. Payments would not exceed 10% of the improvement cost and would not exceed \$750,000 at any single facility.

Section 243: Small Hydroelectric Power Projects

This provision would amend the Public Utility Regulatory Policy Act of 1978 (16 U.S.C. 2078), to change the date on or before which a dam must be constructed to qualify as an existing dam, from April 20, 1977, to March 4, 2003.

Section 244: Increased Hydroelectric Generation at Existing Federal Facilities

Within 18 months of enactment, the Secretaries of the Interior and Energy, in consultation with the Secretary of the Army, would submit a study of the potential for increasing electric power production capability at federally owned or operated water regulation, storage, and conveyance facilities.

Section 245: Shift of Project Loads to Off-Peak Periods

The Secretary of the Interior would review electric power consumption by the Bureau of Reclamation facilities for water pumping, and, with the consent of affected irrigation customers, adjust water pumping schedules to reduce power consumption during periods of peak electric power demand. This section would not affect Interior's existing obligations to provide electric power, water, or other benefits.

Section 246: Corps of Engineers Hydropower Operation and Maintenance Funding

This section would authorize the administrators of federal power marketing administrations (PMAs) to transfer receipts to the Corps for operations and maintenance activities at facilities assigned to them. This provision was not in either the House or Senate version of H.R. 6.

Section 246 (247): Limitation on Certain Charges Assessed to the Flint Creek Project, Montana

Charges for using federal land for the Flint Creek hydroelectric facility would be limited to \$25,000 per year. This provision was not in either the House or Senate version of H.R. 6.

Section 247 (248): Reinstatement and Transfer of Hydroelectric License

The license for FERC project 2696, the Stuyvesant Falls Hydroelectric Project, would be reinstated and transferred to the Town of Stuyvesant, NY. This provision was not in either the House or Senate version of H.R. 6.

Title III—Oil and Gas

Subtitle A—Petroleum Reserve and Home Heating Oil

Section 301: Permanent Authority to Operate the Strategic Petroleum Reserve

Congress authorized the Strategic Petroleum Reserve (SPR) in the Energy Policy and Conservation Act (EPCA, P.L. 94-163) to help prevent a repetition of the economic dislocation caused by the 1973-74 Arab oil embargo. Physically, the SPR comprises five underground storage facilities, hollowed out from naturally occurring salt domes, located in Texas and Louisiana. In 2000, Congress also authorized establishment of a Northeast Heating Oil Reserve (NHOR) where two million barrels of home heating oil is kept in leased, above-ground storage, to be released if the price of heating oil exceeds a calculated historic average. The authorities governing the SPR and NHOR are included in the Energy Policy and Conservation Act (EPCA, P.L. 94-163) and are currently authorized through FY2008 by P.L. 108-7. These authorities also provide for U.S. participation in emergency activities of the International Energy Agency (IEA) without risking violation of antitrust law and regulation.

The conference bill would permanently reauthorize both programs, avoiding awkward periods such as occurred in 2000 when differences between the House and Senate over certain issues resulted in a period of several months when the authorities were not in force.

Section 302: National Oilheat Research Alliance

The National Oilheat Research Alliance (NORA) was established by the Energy Policy Act of 2000 (P.L. 106-460), and assesses a fee of \$.002 per gallon on home heating oil sold by retail distributors. The proceeds, among other purposes, are dedicated to research on improving the efficiency of furnaces and boilers, and providing education and training resources to professionals in the industry. The conference bill would extend the authorization for NORA until nine years (2010) after the date on which the Alliance was established.

Subtitle B—Production Incentives

Section 311: Definition of Secretary

In this subtitle, “Secretary” means Secretary of the Interior.

Section 312: Program on Oil and Gas Royalties-In-Kind

The federal government would be allowed to continue to receive physical quantities of oil and gas as royalty-in-kind payments if it can receive market value for the product and revenues greater than or equal to the revenues it would have received under a comparable cash-payment royalty. The royalty product would have to be placed in marketable condition (as defined in H.R. 6) at no cost to the United States. Small refineries would receive preferential treatment if supplies on the market were insufficient. A report to Congress in each year from FY2004-FY2013 would explain among, other things, how the Secretary determined whether the amount received was at least the amount that would have been taken in cash and how a lease was evaluated as to whether royalty in kind were taken. **This section would have taken effect upon enactment of the act. In S. 2095, this section would take effect on October 1, 2004.**

Section 313: Marginal Property Production Incentives

The Secretary of the Interior would have the authority to reduce or terminate royalties for independent producers under certain conditions. The Secretary would be authorized to prescribe different standards for marginal properties in lieu of those in this section. **This section would take effect on October 1, 2004.**

Section 314: Incentives for Natural Gas Production From Deep Wells in the Shallow Waters of the Gulf of Mexico

Royalty reductions would be provided for shallow water deep gas production at certain depths not later than 180 days after enactment. An “ultra-deep” well would also be defined in this section. **This section would take effect on October 1, 2004.**

Section 315: Royalty Reductions for Deep Water Production

Royalty reductions would be provided for deepwater areas at fixed production levels at certain depths.

Section 316: Alaska Offshore Royalty Suspension

Planning areas in offshore Alaska would be included under section 8(a)(3)(B) of the Outer Continental Shelf Lands Act (OCSLA, 43 U.S.C. 1337(a)(3)(B)). This section of OCSLA

currently provides a mechanism for the Secretary of the Interior to reduce or eliminate royalty or net profit share established in leases for oil and gas production in Gulf of Mexico planning areas. This provision was not in the House or Senate bills.

Section 317: Oil and Gas Leasing in the National Petroleum Reserve in Alaska

The competitive leasing system for oil and gas in the National Petroleum Reserve in Alaska would be modified. Leases would be issued for successive 10-year terms if leases met specific criteria. Active participation would be sought by the state of Alaska and Regional Corporations as defined under the Alaska Native Claims Settlement Act (43 U.S.C. 1602). The Secretary of the Interior could grant royalty reductions if they were found to be in the public interest. This section was not in the House or Senate bills.

Section 318: Orphaned, Abandoned, or Idled Wells on Federal Land

Within a year after enactment, the Secretary would establish a technical assistance program to help states remediate and close abandoned or idled wells. Technical and financial assistance would be made available over a 10-year period to quantify and mitigate environmental dangers. A program would be established for reimbursing the private sector with credits against federal royalties for reclaiming, remediating, and closing orphaned wells.

Section 319: Combined Hydrocarbon Leasing

The Mineral Leasing Act would be amended to allow separate leases for tar sands and for oil and gas in the same area. Tar sands would be leased under the same system as for oil and gas and would require a minimum accepted bid of \$2 per acre.

Section 320: Liquefied Natural Gas

This section would amend the Natural Gas Act to limit the criteria upon which FERC could reject a proposed liquefied natural gas (LNG) project. Under the conference bill, FERC could not deny a “certificate of convenience and necessity” solely because a facility would be at least partly dedicated to importing the project sponsor’s own natural gas.

Current Law

Under the Natural Gas Act, FERC reviews jurisdictional project proposals (including those for natural gas importation) to determine if a public need would be met. A wide variety of criteria are applied in making such a determination. The Commission can reject a project for a range of reasons, including impact on the competitive nature of U.S. natural gas markets.

Policy Context

Growth in U.S. natural gas demand has created a need for additional gas supplies, and imports from plentiful reserves abroad—in the form of LNG—have attracted recent interest. An increasing number of projects are under consideration, and FERC may have to pick and choose which to certificate.

Section 321: Alternate Related Uses on the Outer Continental Shelf

The Secretary would be authorized to grant rights-of-way or easements on the OCS for energy-related activity on a competitive or noncompetitive basis and would charge fees for such access. A surety bond or other financial guarantee would be required.

Section 322: Preservation of Geological and Geophysical Data

Under the proposed “National Geological and Geophysical Data Preservation Program Act of 2003,” the Interior Department through the U.S. Geological Survey would establish a program to archive geologic, geophysical, and engineering data, maps, well logs, and samples; provide a national catalog of archival material; and provide technical and financial assistance related to the archival material. State agencies that elect to be part of the data archive system that stores and preserves geologic samples would receive 50% financial assistance, subject to the availability of appropriations. Private contributions would be applied to the non-federal share. Appropriations of \$30 million per year from FY2004 through FY2008 would be authorized.

Section 323: Oil and Gas Lease Acreage Limitations

Lease acreage limits would be altered so that additional federal lands would not fall under the Mineral Leasing Act’s single-state ownership limitations.

Section 324: Assessment of Dependence of State of Hawaii on Oil

Concern surfaces periodically about the vulnerability of U.S. territories and Hawaii in the event of an oil supply disruption. The conference bill would require a broad study that would assess the “economic implication” of Hawaii’s reliance upon oil in both the electricity and transportation sectors. The report would explore the technical and economic feasibility of displacing the use of residual fuel oil for the generation of electricity with renewables and liquefied natural gas. Delivery of a report would be required roughly 10 months after enactment.

Section 325: Deadline for Decision on Appeals under the Coastal Zone Management Act

This section would replace language in Section 319 of the Coastal Zone Management Act of 1972 (CZMA), as amended (16 U.S.C. 1465). Section 319 had been added as an amendment in 1996. It established a time line for appeals to the Secretary of Commerce on consistency determinations when a state and federal agency are unable to reach agreement. The consistency provisions, set forth in Section 307 of the CZMA, require federal activities in or affecting the coastal zone to be consistent with the policies of a federally approved and state-administered coastal zone management plan. (Federal activities include activities and development projects performed by a federal agency or by a contractor on behalf of a federal agency, and federal financial assistance.) A proposal to modify the appeals time line with deadlines very similar to this legislation was included in a proposed rule on federal consistency, published in the June 11, 2003, *Federal Register*. A final rule has not been issued.

The consistency provision creates an unusual relationship where states can halt most federal actions that are incompatible with state interests. When enacted, the consistency requirement was viewed as a main reason why states would pursue development and implementation of coastal plans since the other incentive to participate, federal financial grants, always has been modest. This view appears to have some validity as 34 or the 35 eligible states and territories are now administering federally approved coastal management programs.

Current Law

The consistency provisions in Section 307 of the CZMA guides state consideration of whether a proposed federal activity will be compatible with a federally approved and state-administered coastal zone management plan. Since the first state plan was approved in the mid-1970s, there has

been considerable friction between states and federal agencies over the reach of the consistency provisions. States have sought broader application to have a strong role in decisions about the largest possible array of proposed federal activities, while the federal government has sought narrower interpretations, especially relating to offshore energy development. Determining an exact boundary separating actions on which the state is to have a primary role in halting a proposal from actions on which the state does not have such powers has been a subject of federal appeals and litigation, including decisions by the U.S. Supreme Court (notably *Secretary of the Interior v. California*, 464 U.S. 312 (1984), in which the court determined that the sale of oil and gas leases on the outer continental shelf was not an act affecting the coastal zone).

When a state and a federal agency cannot reach an agreement on a consistency determination, the law and regulations lay out an elaborate process for resolving that disagreement. Most disagreements are resolved through this process, but if no agreement can be reached, the final step is an appeal to the Secretary of Commerce to make a decision. Appeals to the Secretary have not been common. According to citations of appeals posted on the website of the Office of Ocean and Coastal Resource Management in the National Oceanic and Atmospheric Administration (NOAA), as of December 30, 2003, 38 consistency determinations were appealed to the Secretary between 1984 and 1999, and 19 of them involved proposed activities by oil companies. The appeals process, like all other aspects of consistency, is currently covered under a final rule issued by NOAA in the December 8, 2000, *Federal Register*.

Section 319 in current law has less detail than the proposed amendment. It states that the Secretary will either issue a final decision on the appeal or publish a notice in the *Federal Register* stating why a decision cannot be reached within 90 days after the record has closed. If the Secretary publishes a notice that a decision has not been made, that decision must be issued within 45 days of the date of publication of that notice.

Conference Agreement

The conference agreement would replace the current Section 319 of the CZMA with a new set of provisions that would stipulate three sequential deadlines, and thereby limit the overall length of this appeals process to a total of 270 days from the date when an appeal is filed. The first deadline would be for the Secretary of Commerce to publish an initial notice of an appeal in the *Federal Register* within 30 days of the appeal's filing. The second deadline would be that the administrative record would be open for no more than 120 days. During that time period, the Secretary could receive filings related to the appeal. The final deadline would give the Secretary up to 120 days to issue a decision after the administrative record had been closed. The second and third deadlines would also apply to all pending appeals not resolved prior to the date of enactment. Also, any appeals in which the record is open on the date of enactment would have to be closed within 120 days of that date.

Policy Context

Consistency appeals have been contentious and, in some instances, the appeals process has dragged on for long time periods. The 1996 amendments in Section 319 were meant to address those delays by establishing some time limits. This has proved unsatisfactory to some, who seek additional statutory language that would remove decisions about deadlines from the unpredictable rule-making process by defining the length of component steps in law, and therefore the overall process, after an appeal to the Secretary has been filed.

Section 326: Reimbursement for Costs of NEPA Analysis, Documentation, and Studies

The Minerals Leasing Act would be amended to provide reimbursement for costs of NEPA-related studies under certain circumstances. **This provision would not take effect until October 1, 2008.**

Section 327: Hydraulic Fracturing

This section would amend the Safe Drinking Water Act (SDWA, 42 U.S.C. 300h(d)) to specify that the definition of “underground injection” excludes the injection of fluids or propping agents used in hydraulic fracturing operations for oil and gas production.

In response to a 1997 court ruling directing EPA to regulate hydraulic fracturing as underground injection, Section 327 would expressly preclude EPA from regulating the underground injection of fluids used in hydraulic fracturing for oil and gas production. The provision adopts language from the House bill that exempts hydraulic fracturing from the definition of underground injection. The Senate bill directed EPA to study the effects of hydraulic fracturing of hydrocarbon-bearing formations on underground sources of drinking water, and to determine whether regulation was necessary. The Senate bill also directed the National Academy of Sciences to study the effects of coalbed methane production on surface and ground water resources.

Current Law

The SDWA required EPA to promulgate regulations for state underground injection control (UIC) programs that included minimum requirements for programs to prevent underground injection that endangers sources of drinking water. The Act specifies that UIC program regulations may not prescribe requirements that interfere with “any underground injection for the secondary or tertiary recovery of oil or natural gas, unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection” (SDWA §1421(b)(2)).

Policy Context

EPA reports that before 1997 it had not considered regulating hydraulic fracturing for oil and gas development, because the Agency did not view this well-production process as an activity subject to regulation under SDWA’s UIC program. In 1997, the 11th Circuit Court of Appeals ruled that the injection of fluids for the purpose of hydraulic fracturing constituted underground injection as defined under the SDWA, that all underground injection must be regulated, and that hydraulic fracturing of coalbed methane wells in Alabama should be regulated under the state’s UIC program (*LEAF v. EPA*, 118 F. 3d 1467). In 1999, EPA approved a revision to Alabama’s UIC program to include regulations for hydraulic fracturing of coalbed methane wells.

Following the court’s decision, EPA decided it needed more information before making further decisions regarding the regulation of hydraulic fracturing, and undertook a study to evaluate impacts on drinking water sources from hydraulic fracturing practices used in coalbed methane production. In 2002, EPA issued a draft report that identified water quality and quantity problems attributed to hydraulic fracturing in several states in the West and Southeast, but tentatively

concluded that the overall impact was small.⁵ EPA is expected to issue a final report in early 2004.

In 2003, EPA's National Drinking Water Advisory Council recommended that EPA (1) work, either through voluntary means or regulation, to eliminate the use of diesel fuel and related additives in fracturing fluids that are injected into formations containing drinking water sources; (2) continue to study the health and environmental problems that could occur from hydraulic fracturing for coalbed methane production; and (3) defend its authority and discretion to implement the UIC program in a way that advances protection of groundwater resources from contamination.

Section 328: Oil and Gas Exploration and Production Defined

This section would provide a permanent exemption from Clean Water Act (CWA) stormwater runoff rules for the construction of exploration and production facilities by oil and gas companies or the roads that service those sites. Currently under that Act, the *operation* of facilities involved in oil and gas exploration, production, processing, transmission, or treatment is generally exempt from compliance with stormwater runoff regulations, but the *construction* of associated facilities is not. The amendment would modify the CWA to specifically include construction activities in the types of oil and gas facilities that are covered by the law's statutory exemption from stormwater rules.

The issue arises from stormwater-permitting rules for small construction sites and municipal separate storm sewer systems that were issued by the Environmental Protection Agency (EPA) in 1999 and which became effective March 10, 2003. Those rules, known as Phase II of the Clean Water Act stormwater program, require most small construction sites disturbing one to five acres and municipal separate storm sewer systems serving populations of up to 100,000 people to have a CWA discharge permit. The permits require pollution-prevention plans describing practices for curbing sediment and other pollutants from being washed by stormwater runoff into local water bodies. Phase I of the stormwater program required construction sites larger than five acres (including oil and gas facilities) and larger municipal separate storm sewer systems to obtain discharge permits beginning in 1991.⁶

As the March 2003 compliance deadline approached, EPA proposed a two-year extension of the Phase II rules for small oil and gas construction sites to allow the agency to assess the economic impact of the rule on that industry. EPA said the delay was needed to comply with President Bush's Executive Order 13211, which directed agencies to consider the effects of their actions on energy-related production activities. EPA had initially assumed that most oil and gas facilities would be smaller than one acre and thus excluded from the Phase II rules, but recent Department of Energy data indicate that several thousand new sites per year would be of sizes subject to the rule. The postponement did not affect other industries or small cities covered by the 1999 rule.

Conference Agreement

The provision in the conference bill is similar to one in House-passed H.R. 6: It makes EPA's two-year delay permanent and makes it applicable to construction activities at all oil and gas development and production sites, regardless of size, including those covered by Phase I of the stormwater program. The Senate version included no similar provision. Industry officials

⁵ U.S. EPA, *Draft Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs*, August 2002, pp. 6-20 - 6-21.

⁶ For background, see CRS Report 97-290, *Stormwater Permits: Status of EPA's Regulatory Program*.

contended that the EPA stormwater rule created costly permitting requirements, even though the short construction period for drilling sites carried little potential for stormwater runoff pollution. Supporters said the provision was intended to clarify existing CWA language. Opponents argued that the provision did not belong in the energy legislation and that there was no evidence that construction at oil and gas sites caused less pollution than other construction activities. However, they were unsuccessful in efforts to remove the provision during House consideration of H.R. 6 in April 2003 and also during conference deliberations. On November 7, by a 188-210 vote, the House defeated a motion offered by Representative Filner that would have instructed conferees to strike the oil and gas exemption provision from the bill.

Section 329: Outer Continental Shelf Provisions

For applications to build deepwater ports, the Secretary of Transportation could use environmental impact statements or other studies prepared by other federal agencies instead of conducting separate studies. Information from state and local governments and private-sector sources could also be used. This provision was not included in the House and Senate bills.

Section 330: Appeals Relating to Pipeline Construction or Offshore Mineral Development Projects

Appeals of decisions under the Coastal Zone Management Act on natural gas pipelines and offshore energy projects would be based exclusively on the record compiled by FERC or the relevant permitting agency. It would be the sense of Congress that appeals relating to natural gas pipeline construction would be coordinated within FERC's established timeframes under sections 3 and 7 of the Natural Gas Act (15 U.S.C. 717 b 717 (f)).

Section 331: Bilateral International Oil Supply Agreements

Prior to the Camp David accords, the United States entered into treaties and agreements with Israel to provide oil to that nation if Israel could not purchase all the oil it needed in the markets. This commitment was renewed in 1995 and requires reauthorization in early FY2005. This provision would have the effect of making these agreements permanent and with the force of law.

Sections 332 and 333: Natural Gas Market Reform

These sections would address natural gas price reporting issues in the wake of the Enron scandal. During extremely volatile market episodes in 2000-2001—when gas prices briefly soared to unprecedented levels—it was alleged that market participants reported false trading information to price-reporting services. Beyond creating higher prices for the market participants involved, these price-reporting schemes arguably resulted in higher transactions prices for unrelated gas deals whose prices were derived from published price indices artificially escalated by the allegedly false reports.

Section 332, entitled “Natural Gas Market Reform,” would modify the Commodity Exchange Act (CEA, 7 U.S.C. 13), banning “knowingly false or knowingly misleading or knowingly inaccurate reports.” It also increases the penalties for false reporting.

Section 333, entitled “Natural Gas Market Transparency,” would direct FERC to issue rules calling for the timely reporting of natural gas prices and availability and to evaluate the data for accuracy. The language specifies that FERC not impinge on the role of commercial publishers of natural gas prices.

Current Law

The Commodity Futures Trading Commission regulates public trading in gas under a variety of securities laws, including the CEA. FERC also has existing authority to prevent market manipulation and issued Order 644 on November 13, 2003. Order 644 is designed to prevent market abuse, set “rules of the road,” and provide a more stable marketplace for both electricity and natural gas. It establishes rules relating to market manipulation, data reporting, and record retention. It also makes sellers subject to disgorgement of unjust profits and revocation of FERC authorities to operate under market-based rules (i.e. without direct regulatory supervision) and/or to do business.

The New York Mercantile Exchange (NYMEX)—where much of the trading in natural gas futures takes place—also has some authority to prevent trading abuses on its platform. In November 2003, it formulated a proposal regarding strict record keeping, price disclosure, and use of a common computer-based data format, such that trading information could be electronically scanned to find trading anomalies.

Subtitle C—Access to Federal Land

Sections 341-348: Leasing and Permitting Processes

These sections would address concerns over delays in the permitting process for oil and gas development after leases are granted. Some lease stipulations are considered by the Administration to be impediments to domestic oil and gas development. However, concerns have also been raised that faster permitting could bypass important environmental protections.

Current Law

The federal oil and gas leasing program is governed under the Mineral Leasing Act of 1920, as amended (30 U.S.C. 181 et. seq.). Bureau of Land Management (BLM) procedures for an application for a permit to drill (APD) are contained in 43 CFR 3162.3-1. The APD is posted for 30 days. Within 5 working days after the 30-day period, the BLM consults with surface-managing agencies whose consent is also required, then notifies the applicant of the results. The BLM is also required to process the application within the 35-day period. The Bush Administration has taken some action on this issue, including processing and conducting environmental analyses on multiple permit applications with similar characteristics, implementing geographic area development planning for oil and gas fields or areas within a field, and allowing for block surveys of cultural resources.

Conference Agreement

An Office of Federal Energy Project Coordination (FEPC) would be established to review and report on accomplishments that are considered more efficient and effective for federal permitting (**Sec. 341**). The Secretary of the Interior would perform an internal review of the federal onshore oil and gas leasing and permitting process with particular focus on lease stipulations affecting the environment and conflicts over resource use (**Sec. 342**). The Secretary would be required to ensure expeditious completion of environmental and other reviews and implement “best management practices” that would lead to timely action on oil and gas leases and drilling permits (**Sec. 343**). The Secretaries of the Interior and Agriculture would be required to sign an MOU on the “timely processing” of oil and gas lease applications, surface use plans and drilling

applications, the elimination of duplication, and ensuring consistency in applying lease stipulations (**Sec. 344**).

The U.S. Geological Survey would be required to estimate onshore oil and gas resources and identify impediments and restrictions that might delay permits. The Department of Energy would be required to make regular assessments of economic reserves (**Sec. 345**). Compliance with Executive Order No. 13211 (42 U.S.C. 12301 note), requiring energy impact studies, would be required before taking action on regulations having an effect on domestic energy supply (**Sec. 346**).

A pilot program would be established to demonstrate energy development on federal land in accordance with the multiple-use mandate; Wyoming, Montana, Colorado, Utah, and New Mexico would be asked to participate (**Sec. 347**). The Secretary of the Interior would have 10 days after receiving an application for a permit to drill (APD) to notify the applicant whether the APD was complete. The Secretary would have 30 days after a complete APD was submitted to issue or defer a permit with correcting measures. If deferred, the applicant would have a two-year window to complete the application, as specified by the Secretary. If the applicant met the requirements, then the Secretary would issue a permit within 10 days. The Secretary would deny the permit if the criteria were not met within the two-year period (**Sec. 348**).

Section 349: Fair Market Rental Value Determinations for Public Land and Forest Service Rights-of-Way

The Secretaries of the Interior and Agriculture would annually revise and update rental fees for land encumbered by linear rights-of-way to reflect fair market value.

Section 350: Energy Facility Rights-of-Way and Corridors on Federal Lands

Not later than one year after enactment, the Secretaries of the Interior and Agriculture, in consultation with Secretaries of Defense, Commerce, and Energy and FERC, would submit to Congress a report addressing the location of existing rights-of-way on federal land for oil and gas pipelines and electric transmission and distribution facilities.

Section 351: Consultation Regarding Energy Rights-of-Way on Public Land

Within six months after enactment, the Secretaries of the Interior and Agriculture would be required to enter into an MOU to coordinate environmental compliance and processing of rights-of-way applications.

Section 352: Renewable Energy on Federal Lands

The Secretaries of Agriculture and the Interior, in consultation with others, would prepare a five-year plan for encouraging renewable energy development, including an analysis of rights of way and projected net benefits of government incentives. A National Academy of Sciences study would be required within two years to assess renewable energy on the outer continental shelf. This provision is new to the conference report.

Section 353: Electricity Transmission Line Right-of-Way in Cleveland National Forest and Adjacent Public Land

The Bureau of Land Management would become the lead federal agency for environmental and other necessary reviews for a high-voltage electricity transmission line right-of-way through the Trabuco Ranger District of the Cleveland National Forest in California.

Section 354: Sense of Congress Regarding Development of Minerals Under Padre Island National Seashore

In recognition of the split estate on Padre Island National Seashore, it would be the sense of Congress that the federal government owns the surface rights while the mineral rights are held privately and also by the state of Texas. The implications of this section are uncertain.

Section 355: Encouraging Prohibition of Offshore Drilling in the Great Lakes

States adjacent to the Great Lakes would be encouraged to prohibit off-shore drilling in the Great Lakes.

Section 356: Finger Lakes National Forest Withdrawal

This provision would withdraw all federal land within the boundary of Finger Lakes National Forest in the state of New York from entry, appropriation, or disposal under public land laws and disposition under all laws relating to oil and gas leasing. This section was not included in the House and Senate bills.

Section 357: Study on Lease Exchanges in the Rocky Mountain Front

The Secretary of the Interior would, among other things, consider opportunities for domestic oil and gas production through the exchange of non-producing leases in defined areas of the Rocky Mountain Front for other comparable tracts, consider compensation for the exchange or cancellation of a non-producing lease, and assess the economic impact on the lessees and the state under a lease exchange or cancellation. Statutory guidelines would be provided for valuation of non-producing leases. This section was not included in the House and Senate bills.

Section 358: Federal Coalbed Methane Regulation

States on the list of “affected states” under section 1339(b) of the Energy Policy Act of 1992 (42 U.S.C. 13368(b)) would be removed if they took specified actions within three years after enactment of H.R. 6 or had previously taken action under section 1339(b). The list of “affected states” established under the Energy Policy Act of 1992 (42 U.S.C. 13368 (b)) includes West Virginia, Pennsylvania, Kentucky, Ohio, Tennessee, Indiana, and Illinois. These states are on the list as a result of coalbed methane (CBM) ownership disputes, impediments to development, lack of a regulatory framework to encourage CBM development in the state, and no current extensive development of CBM. A state may be removed from the list through a petitioning process initiated by the governor of that state. This provision was not included in the House and Senate bills.

Section 359: Livingston Parish Mineral Rights Transfer

Section 102 of P.L. 102-562 is amended by striking the “Conveyance of Lands” provision, which maintains the reservation of mineral rights held by the United States in specific areas of Livingston Parish, Louisiana. This provision was not included in the House and Senate bills.

Subtitle D—Alaska Natural Gas Pipeline

This Subtitle would facilitate the construction of a pipeline to transport natural gas from the Alaskan North Slope (ANS) to the lower 48 states.

Section 371: Short Title

Subtitle D would be cited as the Alaska Natural Gas Pipeline Act.

Section 372: Definitions

ANS natural gas would be defined as lying north of 64 degrees north latitude; the Transportation Project would be defined as delivering this gas to the Alaska-Canada border by a route heading south from Prudhoe Bay.

Section 373: Issuance of Certificate of Public Convenience and Necessity

FERC would be directed to issue a certificate of convenience and necessity for an applicant seeking to build this pipeline under the terms the Natural Gas Act alone, presuming both a public need and that sufficient transport capacity existed at the Canadian end of the pipe to deliver the gas to U.S. markets. An expedited hearing process would be provided for, directing FERC to issue a certificate within 60 days after the issuance of a final environmental impact statement.

Section 373 (d) would prohibit construction of a pipeline via a northerly route to Canada transiting under the Beaufort Sea. This would preclude a proposal that was floated a few years ago but garnered little support.

In order to elicit interest in the pipeline project, an “open season” for potential customers would be held 120 days after the energy bill was enacted. An open season is a formalized proceeding in which the public demand for a project is gauged, giving an indication of the capacity that might be called for in an Alaska Gas Transport project.

An assessment of Alaska in-state gas needs would also be made under this section, and access to the state’s royalty gas for consumption within Alaska would be facilitated.

Section 374: Environmental Reviews

This section would fast-track NEPA compliance by the proposed Alaska gas pipeline. FERC would be designated as the lead agency under NEPA, setting the schedule and coordinating environmental reviews, rather than having each federal agency with jurisdiction over an aspect of the project proceed separately with the review process. The Commission would be responsible for consolidating the environmental reviews of all other federal agencies into one environmental impact statement (EIS), which would satisfy all NEPA requirements for the project. The section would require FERC to issue a draft EIS within one year after a project application date, and a final EIS within 180 days after issuing the draft, unless there were delays “for good cause.”

Section 375: Pipeline Expansion

This section would provide FERC with authority to order the capacity of the project to be expanded—after holding a hearing—on the basis of one or more requests for additional capacity. The applicant would have to make a firm commitment for transport services. The hearing would determine that tariffs were non-discriminatory, the expansion would not adversely impact other shippers, and that adequate downstream facilities existed that would deal with additional throughput.

Section 376: Federal Coordinator

An independent executive branch Office of the Federal Coordinator for Alaska Natural Gas Transportation Projects would be established, headed by a presidential appointee who would be confirmed by the Senate. The Secretary of Energy would hold these authorities for up to 18 months while a coordinator was being put in place. The coordinator would be responsible for expeditious discharge of other agencies' responsibilities and ensuring that the provisions of the Alaska gas subtitle of this bill were complied with.

The coordinator would not have authority to override or amend FERC decisions. He or she would enter into an agreement with the state to jointly monitor Transportation System construction, with the state and federal governments having primary responsibility for sections of the project crossing their respective lands.

Section 377: Judicial Review

The U.S. Court of Appeals for the District of Columbia would be designated as having original and exclusive jurisdiction over disputes arising from this proposed legislation. Claims arising under this subtitle would have to be brought not later than 60 days after the action giving rise to the claim, and the court would be directed to give them expedited consideration.

Section 378: State Jurisdiction Over In-State Delivery of Natural Gas

Were the Alaska pipeline project to be constructed, the state could benefit by using it as a backbone system for distributing gas. This section would provide that the state hold jurisdiction over intrastate distribution pipelines that might be supplied by the Transportation Project, ensuring that state pipelines and natural gas would not fall under FERC jurisdiction. **Sec. 338** notes that FERC would have tariff jurisdiction of the Transportation Project, and that the state should coordinate regarding rates for in-state consumers.

Section 379: Study of Alternative Means of Construction

Were no application for Transportation Project construction to be filed within 18 months of the enactment of this act, the Secretary of Energy would be required to conduct a study of alternative construction approaches. The bill calls for consideration of such factors as establishing a federal corporation, joint federal and private-sector ownership, and securing alternative means of financing. The Secretary would report to Congress on the study's findings and make recommendations on how the project might be accomplished.

Section 380: Clarification of ANGTA Status and Authorities

The bill would not change anything previously done under the Alaska Natural Gas Transportation Act of 1976 (ANGTA, 15 U.S.C. 719g), but would provide authority for responsible agencies to

update decisions made in prior years to meet current project requirements. The project sponsor could be required to update environmental impact studies and analyses and compliance plans.

Section 381: Sense of Congress Concerning Use of Steel Manufactured in North America and Negotiation of a Project Labor Agreement

The project sponsors should make “every effort” to use steel manufactured in North America and to negotiate a project labor agreement.

Section 382: Sense of Congress and Study Concerning Participation by Small Business Concerns

Were the project to go forward, it would be the sense of Congress that small businesses—as defined in the Small Business Act (15 U.S.C. 632(a))—should participate to the maximum. The Comptroller General would be directed to study the extent of possible participation and report to Congress not later than one year after enactment. An update every five years would also be called for.

Section 383: Alaska Pipeline Construction Training Program

This section would authorize grants to recruit and train adult workers in Alaska to work on the gas transport project. It would call for the Governor of Alaska to request funds after certifying that the constructions work was reasonably expected to begin within two years.

Section 384: Sense of Congress Concerning Natural Gas Demand

This section would express congressional concern that the demand for natural gas will outstrip supplies from North American producing areas that already have pipeline connections. It would express the belief that both Alaskan and Canadian resources are needed to meet future demand, and that such demand would be strong enough that historic Canadian and lower 48 U.S. producers would not be displaced in the marketplace.

Section 385: Sense of Congress Concerning Alaskan Ownership

This section would convey the sense of Congress that it is in the economic interest of Alaska to have local ownership of a share of the pipeline, and that project sponsors would be encouraged to work with interested local parties seeking to participate.

Section 386: Loan Guarantees

The bill would grant authority to the Secretary of Energy to issue “Federal guarantee instruments,” providing loan guaranties to pipeline certificate holders. The instruments would expire two years after the certificate had been issued, meaning that the project sponsor would have to be in the project financing stage by that time. The loan or debt obligation would have to be issued by a qualified lender, the loan could not be for more than 30 years, and the total amount of the guaranteed debt obligations would be limited to \$18 billion, adjusted for inflation from the date of enactment. The guaranteed loan could cover all legitimate components of the transport system.

The bill also would authorize the Secretary to extend these loan guarantees to the Canadian segment of the Alaska gas transportation project.

Current Law

The basic law addressing the certification of pipelines is the Natural Gas Act, which gives FERC broad-based authority to certificate pipelines, facilitating their construction and ensuring that their rates and tariffs are “just and reasonable.” In addition to the NGA, the Alaska Natural Gas Transportation Act of 1976 was enacted specifically to pave the way for the project visualized in H.R. 6. Under ANGTA, a presidential finding specified the pipeline route that is the focal point of Subtitle D.

Policy Context

Significant amounts of proven ANS gas reserves lie in and around the Prudhoe Bay field and remain there because a transportation system has not been developed, despite enactment of ANGTA in 1976. Demand for natural gas in the lower 48 states has grown in the recent past, and supply has become tight, resulting in steadily increasing average prices and disruptive price volatility during high-demand winter months. While an Alaskan gas pipeline is many years off—even if construction began today—the current supply-demand situation has become a source of longer-term concern among policymakers.

Proponents of the loan guarantees contend that the inherent risk is so high in building an Alaska pipeline, at an estimated cost of \$20 billion, that it could not be financed by conventional means. The conference bill’s loan guarantees would offer those providing the project’s capital some assurance that a certain amount of their investment would be repaid, although exposing the federal government to potential losses. Other proposals have utilized commodity price guarantees or a combination of loan and price guarantees.

Title IV—Coal

Subtitle A — Clean Coal Power Initiative

Sections 401-404: Clean Coal Power Initiative

The Clean Coal Power Initiative (CCPI) is in its third year of funding under a 10-year, \$2 billion program outlined by the Bush Administration. According to DOE, the program supports cost-shared projects with the private sector to demonstrate new technologies that could boost the efficiency and reduce emissions from coal-fired power plants.

Current Law

CCPI does not currently have a specific authorization, although it has been funded through the annual Interior and Related Agencies Appropriations bill. The program supersedes the Clean Coal Technology Program, which has completed most of its projects and has been subject to rescissions and deferrals since the mid-1990s.

Conference Agreement

Funding for CCPI would be authorized for \$200 million for each year from FY2004-FY2012 (**Sec. 401**). The technical criteria would be established for coal-based gasification and other projects. The federal share of financing for each clean coal project would not exceed 50% (**Sec. 402**). A report on the projects’ status and technical milestones would be submitted after the first year and every two years by the Secretary of Energy to various congressional committees (**Sec.**

403). The program would include grants to universities to establish Centers of Excellence for energy systems of the future (**Sec. 404**).

Policy Context

A key ingredient of President Bush's May 2001 National Energy Policy is to bolster U.S. energy supply. One of its goals is to use coal more efficiently, as coal is an abundant national resource. The Administration contends that new technologies could cost-effectively reduce emissions from coal-fired power plants and overcome barriers to expanded coal use.

Subtitle B—Clean Power Projects

Sections 411-416: Clean Power Projects

The Secretary of Energy would be authorized to provide a \$125 million loan to an experimental clean coal power plant in Healy, Alaska (**Sec. 411**). Loan guarantees would be authorized for a power plant using integrated combined-cycle (IGCC) technology in a deregulated market and receiving no ratepayer subsidy (**Sec. 412**). A power plant using IGCC technology in a taconite-producing region of the United States could receive loan guarantees (**Sec. 413**). Loan guarantees would be available for at least one petro-coke gasification polygeneration project, involving co-production of electricity and fuels (**Sec. 414**). Loan guarantees would be authorized for an IGCC project using low-Btu coal that would be combined with renewable energy sources, offer the potential to sequester carbon dioxide emissions, and provide hydrogen for fuel-cell demonstrations. The facility would be located in the Upper Great Plains, and its goal would be to provide at least 200 megawatts of power at competitive rates (**Sec. 415**). The Secretary of Energy would be directed to use \$5 million of appropriated funds to begin a project managed by the DOE Chicago Operations Office to demonstrate high-energy electron scrubbing technology for high-sulfur coal emissions (**Sec. 416**).

Subtitle C—Federal Coal Leases

Sections 421-427: Federal Coal Leases

This subtitle would modify federal coal leasing procedures to encourage greater coal production on federal lands. Issues raised by these provisions include their impact on regional competition and returns to the U.S. Treasury.

Current Law

Under the Mineral Leasing Act of 1920 (30 U.S.C. 203), modifications to an existing coal lease shall not exceed 160 acres or add acreage larger than that in the original lease. Coal leases are subject to diligent development requirements, but the Secretary of the Interior may suspend the condition upon payment of advance royalties. Advance royalties are computed on a fixed production reserve ratio, and the aggregate number of years advance royalties may be accepted in lieu of production is 10. An operation and reclamation plan must be submitted within three years after a lease is issued under the Leasing Act (30 U.S.C. 207). Financial assurance is required to guarantee payment of bonus bid installments (30 U.S.C. 201 (a)).

Conference Agreement

The conference agreement would repeal the 160 acre limitation on coal lease modifications. The total area added to an existing coal lease through a modification could not exceed 1,280 acres or add acreage larger than the original lease (**Sec. 421**). Criteria would be established for extending the mine-out period of a coal lease beyond 40 years (**Sec. 422**). The Secretary may upon payment of an advance royalty, suspend a coal lessee's requirement for continuous operation. Advance royalties would be based on the average price of coal sold on the spot market from the same region, and the aggregate number of years advance royalties could be accepted in lieu of production would be 20 (**Sec. 423**). The current three-year deadline for submission of a coal lease operation and reclamation plan would be repealed (**Sec. 424**). The financial surety bond or other financial guarantee for a bonus bid would no longer be required (**Sec. 425**). The Secretary of the Interior, in consultation with the Secretaries of Agriculture and Energy, would be required to assess coal on public lands, including low-sulfur coal and various impediments to developing such resources (**Sec. 426**). Amendments made under this provision would apply to any coal lease issued before, on, or after the date of enactment (**Sec. 427**).

Subtitle D—Coal and Related Programs

Section 441: Clean Air Coal Program

This section would amend the Energy Policy Act of 1992 with the addition of a clean air coal program to promote increased use of coal, acceptance of new clean coal technologies, and advance deployment of pollution control equipment to meet the Clean Air Act (42 U.S.C. 7402 et seq.).

A total of \$500 million over FY2005-FY2009 would be authorized for pollution control projects to control mercury, nitrogen dioxide, sulfur dioxide emissions, particulate matter, or more than one pollutant; and allow use of the waste byproducts. Additional authorizations totaling \$1.5 billion over FY2006-FY2012 would be provided for projects using coal-based electrical generation equipment and processes, and associated environmental control equipment.

Project selection criteria would be based on significantly improving air quality, replacing less efficient units, and improving thermal efficiency. Up to 25% of projects would be cogeneration or other gasification projects. At least 25% of the projects would be solely for electrical generation, with priority for those generating less than 600 MW. Federal loans or loan guarantees would not exceed 30% of the total funds obligated during any fiscal year. The federal share of projects funded would not exceed 50%.

No technology funded by the program, or level of emissions reduction achieved by funded projects, would be considered adequately demonstrated for purposes of Sections 111, 169, or 171 of the Clean Air Act.

Title V—Indian Energy

Section 501: Short Title

The “Indian Tribal Energy Development and Self-Determination Act of 2003.”

Section 502: Office of Indian Energy Policy and Programs

Title II of the Department of Energy Organization Act (42 U.S.C. 7131 et. seq.) would be amended to create the Office of Indian Energy Policy and Programs at the Department of Energy.

Section 503: Indian Energy

Title 26 the Energy Policy Act of 1992 (25 U.S.C. 3501) would be replaced by this section, which outlines procedures whereby Indian tribes would be able to develop and manage the energy resources located on, and rights-of-way through, tribal land. Within a year of enactment of the bill, the Department of the Interior (DOI) would issue regulations on the requirements for approval of tribal energy resource agreements. Under their own tribal energy resource agreements as approved by DOI, Indian tribes would be able to enter into leases or business agreements for energy development and grant rights-of-way over tribal land for pipelines or electric lines.

Assistance for tribal energy development would be provided through DOI by grants and low-interest loans and through DOE by grants and loan guarantees. Federal agencies could give preference to Indian energy when purchasing energy products and byproducts.

DOI would be required to undertake a review and make recommendations regarding tribal opportunities under the Indian Mineral Development Act of 1982 (25 U.S.C. 2101 et. seq.). The Bonneville Power Administration and Western Area Power Administration would be authorized to assist in developing distribution systems that provide power to Indian tribes using the federal transmission system. DOE, in coordination with the Army and DOI, would conduct a study of the feasibility of obtaining a marketable, steady electricity source from wind energy generated on tribal lands connected with hydropower generated by the U.S. Army Corp of Engineers at Missouri River powerplants.

The language of the conference agreement combines and expands on both the House- and Senate-passed bills with regard to Indian Energy.

Section 504: Four Corners Transmission Line Project

The Dine Power Authority, an enterprise of the Navajo nation, would be eligible to receive grants and other assistance to develop a transmission line from the Four Corners Area to southern Nevada, including related generation facilities.

Section 505: Energy Efficiency in Federally Assisted Housing

The Department of Housing and Urban Development (HUD) would be required to promote energy efficiency and energy conservation in federally assisted housing located on Indian land. This provision would expand current law regarding affordable housing development for Native Americans to include use of energy-efficient technologies and innovations.⁷

Section 506: Consultation with Indian Tribes

The Secretaries of Energy and of the Interior would be required to consult with Indian tribes in carrying out this title.

⁷ 25 U.S.C. 4132(2).

Title VI—Nuclear Matters

Subtitle A — Price-Anderson Act Amendments

Sections 601-611: Price-Anderson Nuclear Liability Coverage

The Price-Anderson Act,⁸ which addresses liability for damages to the general public from nuclear incidents, would be extended through 2023. The Price-Anderson liability system was up for reauthorization on August 1, 2002, and it was extended for commercial nuclear reactors through December 31, 2003, by the FY2003 omnibus continuing resolution (P.L. 108-7). Even without an extension, existing reactors will continue to operate under the current Price-Anderson liability system, but any new reactors would not be covered. Price-Anderson coverage for DOE nuclear contractors was extended through December 31, 2004, by the National Defense Authorization Act for FY2003 (P.L. 107-314).

Current Law

Under Price-Anderson, the owners of commercial reactors must assume all liability for nuclear damages awarded to the public by the court system, and they must waive most of their legal defenses following a severe radioactive release (“extraordinary nuclear occurrence”). To pay any such damages, each licensed reactor must carry financial protection in the amount of the maximum liability insurance available, which was increased by the insurance industry from \$200 million to \$300 million on January 1, 2003. Any damages exceeding that amount are to be assessed equally against all covered commercial reactors, up to \$95.8 million per reactor (most recently adjusted for inflation on August 20, 2003). Those assessments—called “retrospective premiums”—would be paid at an annual rate of no more than \$10 million per reactor, to limit the potential financial burden on reactor owners following a major accident. Including two that are not operating, 105 commercial reactors are currently covered by the Price-Anderson retrospective premium requirement.

Funding for public compensation following a major nuclear incident, therefore, would include the \$300 million in insurance coverage carried by the reactor that suffered the incident, plus the \$95.8 million in retrospective premiums from each of the 105 currently covered reactors, totaling \$10.4 billion. On top of those payments, a 5% surcharge may also be imposed, raising the total per-reactor retrospective premium to \$100.6 million and the total potential compensation for each incident to about \$10.9 billion. Under Price-Anderson, the nuclear industry’s liability for an incident is capped at that amount, which varies depending on the number of covered reactors, the amount of available insurance, and an inflation adjustment that is made every five years. Payment of any damages above that liability limit would require congressional approval under special procedures in the act.

The Price-Anderson Act also covers contractors who operate hazardous DOE nuclear facilities. The liability limit for DOE contractors is the same as for commercial reactors, excluding the 5% surcharge, except when the limit for commercial reactors drops because of a decline in the number of covered reactors. Because the most recent adjustments have raised the commercial reactor liability limit to a record high, the liability limit for DOE contractors is currently the same as the commercial limit, minus the surcharge, or \$10.4 billion. Price-Anderson authorizes DOE to indemnify its contractors for the entire amount, so that damage payments for nuclear incidents at DOE facilities would ultimately come from the U.S. Treasury. However, the law also allows DOE to fine its contractors for safety violations, and contractor employees and directors can face

⁸ Primarily Sec. 170 of the Atomic Energy Act of 1954, 42 U.S.C. 2210.

criminal penalties for “knowingly and willfully” violating nuclear safety rules. However, Section 234A of the Atomic Energy Act specifically exempts seven non-profit DOE contractors and their subcontractors. Under the same section, DOE automatically remits any civil penalties imposed on non-profit educational institutions serving as DOE contractors.

Conference Agreement

Price-Anderson liability coverage for commercial reactors and for DOE contractors would be extended through December 31, 2023 (**Sec. 602**). The total retrospective premium for each reactor would be set at the current level of \$95.8 million and the limit on per-reactor annual payments raised to \$15 million (**Sec. 603**), with both to be adjusted for inflation every five years (**Sec. 607**). For the purposes of those payment limits, a nuclear plant consisting of multiple small reactors (100-300 megawatts, up to a total of 1,300 megawatts) would be considered a single reactor (**Sec. 608**). Therefore, a power plant with six 120-megawatt modular reactors would be liable for retrospective premiums of up to \$95.8 million, rather than \$574.8 million. The liability limit on DOE contractors would be set at \$10 billion per accident, also to be adjusted for inflation, under the conference agreement (**Sec. 604**).

The liability limit and maximum indemnification for DOE contractors for nuclear incidents outside the United States would be raised from \$100 million to \$500 million (**Sec. 605**). However, Price-Anderson indemnification would be prohibited for contracts related to nuclear facilities in countries found to sponsor terrorism (**Sec. 610**). None of the increased liability limits would apply to nuclear incidents taking place before the amendments are enacted (**Sec. 609**). The Nuclear Regulatory Commission (NRC) and DOE would have to report to Congress by the end of 2019 on the need for further Price-Anderson extensions and modifications (**Sec. 606**).

For future contracts, the conference agreement would eliminate the civil penalty exemption for nuclear safety violations by the seven non-profit contractors listed in current law. DOE’s authority to automatically remit penalties imposed on all non-profit educational institutions serving as contractors would also be repealed. However, the bill would limit the civil penalties against a non-profit contractor to the amount of management fees received under that contract (**Sec. 611**).

The House-passed version of H.R. 6 would have authorized the federal government to sue DOE contractors to recover at least some of the compensation that the government had paid for any accident caused by intentional DOE contractor management misconduct. Such cost recovery would have been limited to the amount of the contractor’s profit under the contract involved, and no recovery would have been allowed from nonprofit contractors. However, the conference agreement does not include that provision. Most of the major provisions in the conference agreement are similar to provisions in both the House and Senate versions.

Policy Context

The Price-Anderson Act’s limits on liability were crucial in establishing the commercial nuclear power industry in the 1950s. Supporters of the Price-Anderson system contend that it has worked well since that time in ensuring that nuclear accident victims would have a secure source of compensation, at little cost to the taxpayer. However, opponents contend that Price-Anderson subsidizes the nuclear power industry by protecting it from some of the financial consequences of the most severe conceivable accidents.

Because no new U.S. reactors are currently planned, missing the deadline for extension would have little short-term effect on the nuclear power industry. However, any new DOE contracts signed during Price-Anderson expiration would have to use alternate indemnification authority.

Subtitle B—General Nuclear Matters

Section 621: Commercial Reactor License Period

The initial 40-year period for a commercial nuclear reactor license would begin when NRC authorized the reactor to commence operation. Under current law (Atomic Energy Act sections 103 and 185), the 40-year period may start before construction of a reactor begins, when a combined construction permit and operating license is issued. The conference provision was taken from the House bill, but the Senate version included similar language.

Section 622: NRC Training and Fellowship Program

Funding would be authorized for NRC to conduct a training and fellowship program to develop critical nuclear safety regulatory skills. This is nearly identical to a House provision.

Section 623: Cost Recovery From Government Agencies

NRC would be authorized to charge cost-based fees for all services rendered to other federal agencies. Such authority is limited under current law (Atomic Energy Act, Section 161 w.) This provision is identical to language in the House bill.

Section 624: Elimination of Pension Offset for Key NRC Personnel

When NRC has a critical need for the skills of a retired employee, NRC could hire the retiree as a contractor and exempt him or her from the annuity reductions that would otherwise apply. This is identical to language in the House bill.

Section 625: Antitrust Review Suspension

NRC would no longer have to submit nuclear reactor license applications to the Attorney General for antitrust reviews, as currently required by Atomic Energy Act, Section 105 c. The Senate bill would have replaced the existing antitrust review requirement with modified procedures for new reactor applications; the House version had no provision.

Section 626: Decommissioning Fund Protection

NRC would be explicitly authorized to issue regulations ensuring that funds collected to decommission nuclear power plants would not be used for other purposes. This provision is particularly aimed at cases in which an original nuclear power plant owner has sold the plant but retained control over decommissioning funds collected before the ownership transfer. A similar but more detailed provision was included in the Senate bill.

Section 627: Limitation on DOE Legal Fee Reimbursement

Except as required by existing contracts, DOE would be prohibited from reimbursing its contractors for legal expenses incurred in defending against “whistleblower” complaints that are ultimately upheld. This provision was taken from the House bill.

Section 628: Reactor Decommissioning Pilot Program

A DOE program would be established to decommission the sodium-cooled test reactor in northwest Arkansas. This provision was taken from the Senate bill.

Section 629: Feasibility Study for Commercial Reactors at DOE Sites

The Secretary of Energy would be required to submit a study to Congress on the feasibility of developing commercial nuclear power plants at existing DOE sites. This provision was taken from the House bill.

Section 630: Government Uranium Sales

With certain exceptions, DOE uranium sales would be restricted to 3 million pounds per year from FY2004-FY2009, 5 million pounds per year in FY2010-FY2011, 7 million pounds per year in FY2012, and 10 million pounds per year thereafter. *Up to 21 million pounds could be transferred to the uranium enrichment company USEC Inc., a privatized former government corporation.* Similar provisions were included in both the House and Senate bills.

Section 631: Uranium Mining Research and Development

Funding would be authorized for a cost-shared research and development program by DOE and domestic uranium producers on in-situ leaching mining technologies and related environmental restoration technologies. This provision was taken from the House bill.

Section 632: Whistleblower Protection

Existing whistleblower protections for employees of nuclear power plants and other NRC licensees and employees of DOE contractors would be extended to employees of NRC contractors. An employee whose whistleblower retaliation complaint did not receive a final decision by the Secretary of Labor within 540 days could take the case to federal court. The House bill would have further extended whistleblower protection to DOE and NRC employees and given the Secretary of Labor 180 days for a decision; the Senate bill had no related provision.

Section 633: Uranium Exports for Medical Isotope Production

Highly enriched uranium (HEU) could be exported to Canada, Belgium, France, Germany, and the Netherlands for production of medical isotopes in nuclear reactors. Those countries would be exempt from existing requirements (under Section 134 of the Atomic Energy Act) that they agree to switch to low-enriched uranium (LEU) as soon as possible and that LEU fuel for their reactors be under active development. Instead, those countries would have to agree to convert to suitable LEU fuel when it became available. The exemption in the conference bill would terminate upon certification by the Secretary of Energy that U.S. medical isotope demand could be reliably and economically met with production facilities that do not use HEU. The conference provision is based on language in the House bill, which would have allowed NRC to exempt additional countries from the HEU export restrictions and did not include the termination procedure. The current HEU export restrictions are intended to spur foreign cooperation with U.S. efforts to convert all HEU reactors to LEU, but supporters of the exemption contend that the restrictions could disrupt the supply of medical isotopes produced in foreign HEU reactors.

Section 634: Fernald Byproduct Material

DOE-managed material in the concrete silos at the Fernald uranium processing facility would be considered byproduct material (as defined by section 11 e.(2) of the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2))). DOE would dispose of the material in an NRC- or state-regulated facility. This section is new to the conference bill.

Section 635: Safe Disposal of Greater-than-Class-C Radioactive Waste

DOE would designate an office with the responsibility for developing a comprehensive plan for permanent disposal of all low-level radioactive waste with concentrations of radionuclides that exceed the limits established by the NRC for Class C radioactive waste. The plan would include developing a new facility or use of an existing facility for disposal. This section is new to the conference bill.

Section 636: Prohibition on Nuclear Exports to Terrorism Sponsors

Exports of nuclear materials, equipment, and sensitive technology would be prohibited to any country identified by the Secretary of State as a sponsor of terrorism. The President could waive the export restriction under certain conditions. This provision, without the waiver, is similar to language in the House bill. It is intended to block implementation of a 1994 agreement under which North Korea was to receive a U.S.-designed nuclear power plant in return for abandoning its nuclear weapons program.

Section 637: Uranium Enrichment Facilities

NRC would be required to issue a final decision on a license to build and operate a uranium enrichment facility within two years after an application is submitted. Various procedural requirements would be established to ensure that the two-year licensing schedule could be met. DOE would be required to take title to and possession of any depleted uranium hexafluoride resulting from the enrichment process; the cost assessed by DOE could not exceed the amount assessed to USEC Inc., the sole existing U.S. enrichment firm. Residual material from depleted uranium would be considered low-level radioactive waste. A proposed uranium enrichment plant in New Mexico could be the first to take advantage of this section, which was not in the House and Senate bills.

Section 638: National Uranium Stockpile

The Secretary of Energy would be authorized to create a national low-enriched uranium stockpile. This provision is new to the conference bill.

Subtitle C—Advanced Reactor Hydrogen Cogeneration Project

Sections 651-655: Idaho Hydrogen Production Reactor

DOE would be authorized to design, construct, and operate an advanced hydrogen-producing nuclear reactor (**Secs. 651-652**). The project would be managed by the DOE Office of Nuclear Energy, Science, and Technology, and the reactor would be located at the Idaho National Engineering and Environmental Laboratory (**Sec. 653**). Among other requirements, the project should begin producing hydrogen or electricity by 2010 unless the Secretary of Energy finds that goal infeasible (**Sec. 654**). Funding for the program would be authorized at \$635 million through FY2008, plus \$500 million for construction (**Sec. 655**). This provision is similar to language in S. 14, but there was no similar provision in the House and Senate versions of H.R. 6.

Subtitle D—Nuclear Security

Section 661: Nuclear Facility Threats

In consultation with NRC and other appropriate agencies, the President would be required to identify types of security threats at nuclear facilities. The President would have to issue reports on the identified threats and on actions taken or to be taken to address the threats. NRC would be authorized to revise its regulations based on the President's threat-identification report. NRC would be required to conduct periodic force-on-force exercises to test nuclear facility security. NRC would be authorized to issue regulations to protect information about nuclear facility security, and would be required to assign a security coordinator to each NRC region. This section is similar to language in the House bill.

Section 662: Fingerprinting for Criminal Background Checks

The existing requirement that individuals be fingerprinted for criminal background checks before receiving unescorted access to nuclear power plants (Atomic Energy Act, Section 149) would be extended to individuals with unescorted access to any radioactive material or property that could pose a health or security threat. Other biometric methods could be used instead of fingerprinting. This section was not included in the House and Senate bills.

Section 663: Use of Firearms by Nuclear Licensees

NRC would be authorized to allow the use of firearms by security personnel at nuclear power plants and other facilities licensed or regulated by NRC. Federal law currently authorizes NRC employees and contractors to use firearms, but not employees or contractors of nuclear licensees (Atomic Energy Act, Section 161 k.). This provision would counter some state laws that preclude private guard forces from utilizing some weapons. The House version of H.R. 6 had included similar firearms language but had also provided arrest authority.

Section 664: Unauthorized Introduction of Dangerous Weapons

Existing NRC controls on the entry of dangerous weapons or materials into Commission facilities (Atomic Energy Act, Section 229 a.) would be extended to commercial nuclear power plants and other NRC-regulated facilities. This provision was taken from the House bill.

Section 665: Sabotage of Nuclear Facilities or Fuel

Maximum penalties for sabotage of licensed nuclear facilities or materials (Atomic Energy Act, Section 236 a.) would be increased from \$10,000 and 10 years in prison to \$1 million and life imprisonment without parole. The language would clarify that the penalties could apply to facilities "certified" as well as "licensed" by NRC, and also to sabotage of facilities under construction. This provision was taken from the House bill.

Section 666: Secure Transfer of Nuclear Materials

Nuclear materials transferred or received in the United States pursuant to an import or export license would have to be accompanied by a detailed manifest. Every worker involved in such shipments would have to undergo a federal security background check. Language in the House bill would also have imposed those requirements on nuclear materials transferred from any NRC- or state-licensed facility.

Section 667: Department of Homeland Security Consultation

Before issuing a license for a nuclear power plant, NRC would have to consult with the Department of Homeland Security about the vulnerability of the proposed plant location to terrorist attack. A similar provision was included in the House bill. Under current law, most other NRC costs must be recovered through licensee fees. Appropriation of such sums as necessary to carry out this subtitle would be authorized. This section is new to the conference report.

Title VII—Vehicles and Fuels

Subtitle A — Existing Programs

The sections of this subtitle refer to alternative fuel and vehicle purchase requirements under the Energy Policy and Conservation Act (EPCA) (P.L. 94-163) and the Energy Policy Act of 1992 (EPAct, P.L. 102-486). Various requirements apply to federal vehicle fleets, as well as state fleets and fleets operated by alternative fuel providers.

Section 701: Use of Alternative Fuels by Dual-Fueled Vehicles

Section 400AA of EPCA would be amended to require that all federal agencies operate dual-fueled vehicles on alternative fuels or petition the Secretary of Energy for a waiver from the requirement. Under current law, agencies are not required to file a petition to be exempted from the requirement. A dual-fuel vehicle is one that can be operated on either an alternative fuel (e.g., ethanol or natural gas) or a conventional fuel (e.g., gasoline). Currently, most federally owned dual-fuel vehicles are operated on gasoline as opposed to alternative fuel. This provision is similar to a provision in the Senate version of the bill; the House version contained no similar provision.

Section 702: Neighborhood Electric Vehicles

Section 301 of EPAct would be amended to allow neighborhood electric vehicles to qualify as alternative fuel vehicles for fleet purchase requirements under EPAct. A neighborhood electric vehicle is a small, low-speed, zero-emission vehicle capable of operating on streets but not highways. This provision is similar to a provision in the Senate version of the bill; the House version contained no similar provision.

Section 703: Credits for Medium and Heavy-Duty Dedicated Vehicles

Section 508 of EPAct would be amended to allow vehicle fleets operated by states and alternative fuel providers to claim extra credits for purchasing dedicated (operating solely on alternative fuels) medium- and heavy-duty vehicles in lieu of light-duty vehicles. The purchase of a dedicated medium-duty vehicle would count as two light-duty vehicles in meeting EPAct fleet requirements; a heavy-duty vehicle would count as three. Currently, Executive Order 13149 grants federal fleets (and only federal fleets) three credits for the purchase of a dedicated medium-duty vehicle, and four credits for the purchase of a dedicated heavy-duty vehicle. The House and Senate versions of the bill contained no similar provision.

Section 704: Incremental Cost Allocation

Section 303(c) of EPAct allows federal agencies to allocate the incremental cost of required alternative fuel vehicles across the whole vehicle fleet. The conference report would require

agencies to do so. This provision is similar to a provision in the House version of H.R. 6; the Senate version contained no similar provision.

Section 705: Alternative Compliance and Flexibility

The conference report would amend EPCA to allow new ways for fleets to comply with the vehicle purchase requirements. First, under subsection (a), vehicle fleets operated by states and fuel providers would be allowed to petition the Secretary of Energy for a waiver from the purchase requirements if they met certain criteria. The fleet would be required to develop an alternative plan to reduce petroleum consumption. The alternative plan must result in a reduction in petroleum consumption equal to or greater than if the fleet met its purchase requirement and fueled 100% of its alternative fuel vehicles on alternative fuel 100% of the time.

Second, subsection (b) would allow state and fuel provider fleets to generate vehicle purchase credits through the purchase of hybrid-electric vehicles. Credits would be based on the performance of the hybrid system; the purchase of one hybrid vehicle would qualify for between one-quarter of a credit and one full credit. Under current law, hybrid vehicles do not qualify as alternative fuel vehicles because their primary fuel is gasoline. In addition, subsection (b) would allow fleets to count investments in alternative fuel vehicle infrastructure toward vehicle purchase requirements. Each \$25,000 in investments would qualify for one credit.

Third, subsection (c) would amend the definition of alternative fuel to include lease condensate (liquids recovered from natural gas separation) and fuels derived from lease condensate. Fleets could generate one vehicle purchase credit for the use of a certain volume (to be determined by the Secretary of Energy) of lease condensate fuel in medium- and heavy-duty vehicles. This provision is similar to the existing credit structure for the use of biodiesel.

This section is significantly different from the House and Senate versions of H.R. 6. Neither version provided for alternative compliance methods. Further, neither version permitted credits for the use of lease condensate fuel. However, the Senate version provided credits for the purchase of hybrid vehicles and both versions provided credits for investment in alternative fuel infrastructure.

Section 706: Review of Energy Policy Act of 1992 Programs

The Secretary of Energy would be required to conduct a study on the effectiveness of the alternative fuel vehicle programs under EPCA. Specifically, the Secretary would be required to assess the effects on vehicle technology, availability, and cost.

Section 707: Report Concerning Compliance with Alternative Fuel Vehicle Purchasing Requirements

Each federal agency is required to report annually (through 2012) to Congress on its compliance with EPCA vehicle purchase requirements. The conference report would extend the requirement through 2018.

Subtitle B—Hybrid Vehicles, Advanced Vehicles, and Fuel Cell Buses

Section 711: Hybrid Vehicles

Section 711 would require the Secretary of Energy to accelerate research on technologies for hybrid vehicles. No new funds would be authorized.

Sections 721-724: Advanced Vehicles

The Secretary of Energy would be authorized to provide grants to state governments, local governments, and metropolitan transit authorities for the purchase of alternative fuel, hybrid, fuel cell, and ultra-low sulfur diesel vehicles (defined in **Sec. 721**), and the infrastructure to support them. The program would be administered through the Clean Cities Program. Grants would be capped at \$20 million per applicant. Between 20% and 25% of all grant funds would be used for ultra-low sulfur diesel vehicles (**Sec. 722**). The Secretary would be required to submit reports to Congress identifying grant recipients and evaluating the program's effectiveness (**Sec. 723**). \$200 million total would be authorized for the grant program (**Sec. 724**). This provision is similar to a provision in the House version of H.R. 6; the Senate had no similar provision.

Section 731: Fuel Cell Transit Bus Demonstration

The Secretary of Energy would be required to establish a program to demonstrate up to 25 fuel cell transit buses in various localities. \$10 million annually would be authorized for FY2004 through FY2008. This provision is similar to a provision in the House version of H.R. 6, but the House version would have authorized \$40 million for the project. The Senate version contained no similar provision.

Subtitle C—Clean School Buses

Sections 741-744: Clean School Buses

A pilot program administered by the Environmental Protection Agency would be established to provide grants to local governments and contractors that provide school bus service for public school systems. Grants would be provided to aid in the purchase of alternative fuel and advanced diesel buses (as defined in **Sec. 741**), and the infrastructure necessary to support them. A total of \$200 million would be authorized for FY2005 through FY2007, and a maximum of 30% of the grant funds could be used to purchase advanced diesel buses (**Sec. 742**). A pilot program would also be established to provide grants for the development and application of retrofit technologies for diesel school buses. A total of \$100 million would be authorized for FY2005 through FY2007 (**Sec. 743**). In addition, a pilot program would be established for the development and demonstration of fuel cell school buses. A total of \$25 million would be authorized for FY2004 through FY2006 (**Sec. 744**).

This subtitle is similar to provisions in both the House and Senate versions of H.R. 6. However, the total authorized funding in the conference agreement (\$325 million) is greater than either the House version (\$300 million) or the Senate version (\$210 million).

Subtitle D—Miscellaneous

Section 751: Railroad Efficiency

A public-private research partnership would be established for the development and demonstration of locomotive engines that increase fuel economy, reduce emissions, and lower costs. A total of \$110 million would be authorized for FY2005 through FY2007. This provision is similar to provisions in the House and Senate versions of H.R. 6, but with differing authorizations. The House authorized \$90 million total for the partnership; the Senate authorized \$130 million.

Section 752: Mobile Emission Reductions Trading

Within 180 days of enactment, the EPA Administrator would be required to submit a report to Congress on EPA's experience with the trading of mobile source emission reduction credits to stationary sources to meet emission offset requirements within Clean Air Act nonattainment areas.

Section 753: Aviation Fuel Conservation and Emissions

This section would require the Federal Aviation Administration and EPA to jointly study the impact of aircraft emissions on air quality in Clean Air Act nonattainment areas, and ways to promote fuel conservation measures and reduce emissions.

Section 754: Diesel Fueled Vehicles

The Secretary of Energy would be required to accelerate research on emissions control technologies for diesel motor vehicles. The objective of the research would be to enable diesel technology to meet Tier 2 emission standards not later than 2010. (These standards will apply to cars and light trucks after the 2003 model year.) No new funding would be authorized.

Section 755: Conserve by Bicycling Program

The Department of Transportation (DOT) would be directed to conduct up to 10 pilot bicycling projects to conserve energy. A minimum of 20% of each project's costs would have to be provided by state or local sources. Also, DOT would be directed to engage the National Academy of Sciences to conduct a research study on the feasibility of converting motor vehicle trips to bicycle trips. Some local governments have experimented with police bicycle patrols and other bicycling programs. This provision may help expand such uses of bicycling.

Section 756: Reduction of Engine Idling of Heavy-Duty Vehicles

EPA would be required to study whether existing models of air emissions accurately reflect emissions from idling vehicles. Further, EPA would be required to establish a program to support the deployment of idle-reduction technologies. A total of \$95 million would be authorized for FY2004 through FY2006 for the deployment program.

This section of the conference report varies significantly from the provisions in the House and Senate versions of the bill. First, both the House and Senate versions would have required the Secretary of Energy to study the potential energy savings from idle-reduction technologies. Further, the Senate version would have given the Secretary of Energy the authority to require idle-reduction technologies on all new heavy-duty vehicles.

Section 757: Biodiesel Engine Testing Program

The Secretary of Energy would be required to study the effects of biodiesel and biodiesel blends on current and future emissions control technologies. \$5 million would be authorized annually for FY2004 through FY2008.

Section 758: High Occupancy Vehicle Exception

The Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178) would be amended to allow states to exempt hybrid and dedicated alternative fuel vehicles from high occupancy vehicle (HOV) restrictions. Through September 30, 2003, states had the authority to exempt certain types of alternative fuel vehicles from the restrictions. However, hybrid vehicles and some alternative fuel vehicles did not qualify. As the existing authorization has expired, states do not currently have the authority to exempt any type of alternative fuel vehicle from HOV restrictions. The Senate version of H.R. 6 would have allowed states to exempt alternative fuel vehicles (but not hybrids); the House version contained no similar provision.

Subtitle E—Automobile Efficiency

Sections 771-774: Fuel Economy Standards

The conference bill would authorize \$2 million annually during FY2004-FY2008 for the National Highway Traffic Safety Administration (NHTSA) to carry out fuel economy rulemakings (**Sec. 771**). It would expand the criteria that the agency would be required to take into account in setting maximum feasible fuel economy for cars and light trucks, including the effects of prospective standards on vehicle safety and automotive industry employment (**Sec. 772**). In many instances, these additional factors may add specificity to broader considerations that are already taken into account by NHTSA in developing its rules.

The legislation would also extend corporate average fuel economy (CAFE) credits that accrue to manufacturers of dual-fueled vehicles. The cap to the credit of 1.2 miles per gallon (mpg) earned by any individual manufacturer would be extended to model year (MY) 2008. It was otherwise scheduled to drop to a cap of 0.9 mpg beginning in MY2005. The bill would postpone institution of the 0.9 cap until MY2009 and authorize it through MY2013 (**Sec. 773**). It also would require a study to explore the feasibility and effects of reducing automobile fuel consumption “a significant percentage” by MY2012 (**Sec. 774**).

Current Law

The Energy Policy and Conservation Act (P.L. 94-163) established CAFE standards for passenger cars and light duty trucks. The current CAFE standards are 27.5 mpg for passenger automobiles and 20.7 mpg for light trucks, a classification that also includes sport utility vehicles (SUVs). A final rule issued by NHTSA on April 1, 2003, requires a boost in light truck fuel economy to 22.2 mpg by MY 2007.

Title VIII—Hydrogen

Sections 801-809: Hydrogen Research and Development

Title VIII of the conference report would reauthorize hydrogen fuel research and development at the Department of Energy (**Sec. 803**). The title would establish an Interagency Task Force to

coordinate federal research (**Sec. 804**). Further, the title would require the Secretary of Energy to develop a plan for the development of hydrogen fuel and fuel cells (**Sec. 802**), and would establish a Hydrogen Technical and Fuel Cell Advisory Committee to advise the Secretary and review the development plan (**Sec. 805**). DOE's plans for the hydrogen program would be reviewed by the National Academy of Sciences (**Sec. 806**), and the Secretary of Energy would represent U.S. interests related to hydrogen programs in consultation with relevant agencies (**Sec. 807**). Specified authorities of the Secretary of Transportation would not be affected (**Sec. 808**). A total of \$2.15 billion would be authorized for FY2004 through FY2008 (**Sec. 809**). (Definitions are provided in **Sec. 801**.)

Policy Context

There has been increased interest in hydrogen as a fuel in transportation, stationary, and mobile applications because of potential environmental and energy security benefits. In the State of the Union Address on January 28, 2003, President George W. Bush announced a new Hydrogen Fuel Initiative to promote research and development on hydrogen and fuel cells. Along with the FreedomCAR initiative (announced in January 2002), the Administration is seeking a total of \$1.8 billion through FY2008. This request includes approximately \$720 million in new funding. The conference report would authorize \$2.15 billion over the same time frame, slightly higher than the President's request. The House version of H.R. 6 would have authorized funding at the President's requested level (\$1.8 billion), while the Senate version would have authorized significantly less (\$420 million). However, before it was replaced with the Senate version of H.R. 6, S. 14 would have authorized nearly double the President's request (\$3.0 billion).

In addition to the above provisions on funding, the Senate version of H.R. 6 would have required the Secretary of Energy to develop a program to promote the availability of 100,000 fuel cell vehicles by 2010 and 2.5 million vehicles by 2020. Neither the House version nor the conference report on H.R. 6 contained this provision.

Title IX—Research and Development

Section 901: Goals

DOE would be directed to conduct energy research, development, demonstration, and commercial application programs to support federal energy policy. As part of each annual budget request, the Secretary of Energy would be required to publish measurable five-year cost and performance-based goals that cover energy efficiency, electricity generation, renewable energy, fossil energy, and nuclear energy programs. These programs are currently funded. Both the House and Senate versions of H.R. 6 had more specific goals, such as to reduce national energy intensity.

Section 902: Definitions

For Title IX, this section provides several definitions, including mission, institution of higher education, and national laboratories.

Subtitle A — Energy Efficiency

Section 904: Energy Efficiency

Funding for DOE energy efficiency programs would be authorized for five fiscal years. Funding authorizations for most of these programs have expired. Constraints and prohibitions on funding,

such as the exclusion of funding for issuing energy efficiency regulations, would be established. The Senate version had also included some goals for energy efficiency programs.

Section 905: Next Generation Lighting Initiative

A DOE program would be created that aims to develop advanced white light-emitting diodes (LEDs) for high efficiency lighting. These LEDs are expected to be more efficient than incandescent and fluorescent lights. Both the House and Senate versions had a specific target date for LED development. Also, DOE would be directed to arrange for the National Academy of Sciences to conduct periodic reviews of the initiative.

Section 906: National Building Performance Initiative

An interagency group would be established to address energy efficiency R&D for buildings. The National Institute of Standards and Technology would be directed to provide administrative support. This provision would increase coordination among already existing programs.

Section 907: Secondary Electric Vehicle Battery Use Program

A program would be established at DOE for R&D on applications of used electric vehicle batteries for utility and commercial power storage and power quality.

Section 908: Energy Efficiency Science Initiative

A program of competitive grants for research on energy efficiency would be created. An annual report would be filed with each DOE budget request.

Section 909: Electric Motor Control Technology

DOE would be required to conduct a program on advanced electronic control devices to improve the energy efficiency of electric motors; heating, ventilation, and air conditioning systems; and related equipment.

Subtitle B—Distributed Energy and Electric Energy Systems

Section 911: Distributed Energy and Electric Energy Systems

Five years of funding authorizations would be provided for distributed energy, electric energy, and micro-cogeneration programs.

Section 912: Hybrid Distributed Power Systems

DOE would be directed to prepare a study (strategy) and identify barriers for hybrid distributed power systems that use renewables, storage, and interconnection equipment.

Section 913: High Power Density Industry Program

DOE would be required to create a research, development, and demonstration (RD&D) program to improve energy efficiency and load management of data centers, computer server farms, and other high power density facilities.

Section 914: Micro-Cogeneration Energy Technology

DOE would be directed to make competitive grants to consortia to develop micro-cogeneration technology, including systems that could be used for residential heating.

Section 915: Distributed Energy Technology Demonstration Program

DOE would be authorized to provide financial assistance to consortia for demonstrations to accelerate the use of distributed energy technologies in highly energy-intensive commercial applications. This provision did not appear in either the House or Senate version.

Section 916: Reciprocating Power

DOE would be required to create a program for fuel system optimization and emissions reduction after-treatment technologies for industrial reciprocating engines, including retrofits for natural gas or diesel engines. This provision did not appear in either the House or Senate version.

Subtitle C—Renewable Energy

Section 918: Renewable Energy

Funding for DOE renewable energy programs would be authorized for five fiscal years. Also, specific authorizations would be provided for bioenergy, concentrating solar power, and public buildings. Funding for Renewable Support and Implementation would be excluded.

Section 919: Bioenergy Programs

DOE would be directed to conduct programs on biopower, biofuels, bio-based products, integrated biorefineries, feedstocks, enzymes, and economic analysis. Program goals would include the development of technologies that could make biofuels that are price competitive with gasoline or diesel fuel.

Section 920: Concentrating Solar Power Research and Development Program

DOE would be required to conduct a program to use concentrating solar power to produce hydrogen, including coordination with the Advanced Reactor Hydrogen Cogeneration Project established by Section 651. An assessment of the potential impact of this technology would be required. Also, a report would be required that examines the economic and technical feasibility of a pilot facility that could produce electricity or hydrogen. This provision did not appear in either the House or Senate version.

Section 921: Miscellaneous Projects

DOE would be empowered to conduct programs on ocean and wave energy, combinations of renewable energy technologies with one another, and combinations with other energy technologies, including the combined use of wind power and coal gasification technologies.

Section 922: Renewable Energy in Public Buildings

DOE would be required to conduct an innovative program to put renewable energy equipment in state and local buildings, providing up to 40% of a project's incremental costs. All applicants would be required to show a continuing commitment to renewable energy use.

Section 923: Study of Marine Renewable Energy Options

DOE would be required to arrange with the National Academy of Sciences to conduct a study on renewable energy generation from the ocean, including energy from waves, tides, currents, and from the variation in water temperature with ocean depth (ocean thermal energy).

Subtitle D—Nuclear Energy

Section 924: Nuclear Energy Authorizations

Funding would be authorized through FY2008 for nuclear energy research, development, demonstration, and commercial application activities, including DOE nuclear R&D infrastructure support. Similar authorizations were included in the House and Senate bills.

Section 925: Nuclear Energy Research and Development Programs

DOE would be required to carry out a Nuclear Energy Research Initiative, a Nuclear Energy Plant Optimization Program, a Nuclear Power 2010 Program (to encourage deployment of new commercial reactors as soon as possible), and a Generation IV Nuclear Energy Systems Initiative (for longer-term reactor deployment), and nuclear infrastructure support. These programs, which were included in both the House and Senate bills, are currently conducted by DOE without specific funding authorizations.

Section 926: Advanced Fuel Cycle Initiative

DOE's Office of Nuclear Energy, Science, and Technology would be required to conduct an R&D program on advanced technologies for the reprocessing of spent nuclear fuel. The technologies should be resistant to nuclear weapons proliferation and support alternative spent fuel disposal strategies and Generation IV advanced reactor concepts. DOE is currently implementing the Advanced Fuel Cycle Initiative without a specific funding authorization. Spent fuel recycling or reprocessing involves the extraction of plutonium and uranium from spent nuclear fuel for use in new fuel. Supporters contend that it could extend domestic energy supplies and reduce the hazard posed by nuclear waste, while opponents are concerned that the extracted plutonium could be used for weapons. The House and Senate versions of H.R. 6 had similar provisions.

Section 927: University Nuclear Science and Engineering Support

DOE would be required to support human resources and infrastructure in nuclear science and engineering and related fields. The program would include fellowship and faculty assistance programs and support for fundamental and collaborative research. The program would also be authorized to help convert research reactors to low-enriched fuels, provide technical assistance for relicensing and upgrading research reactors, and provide funding for reactor improvements. DOE funding for research projects could be used for some of the operating costs of research reactors used in those projects. This section would add new statutory requirements to the existing DOE University Reactor Fuel Assistance and Support Program. Similar provisions were included in the House and Senate bills.

Section 928: Security of Reactor Designs

DOE's Office of Nuclear Energy, Science, and Technology would be required to carry out an R&D program on technology for increasing the safety and security of reactor designs. This provision was not in the House and Senate bills.

Section 929: Alternatives to Industrial Radioactive Sources

After studying the current management of industrial radioactive sources and developing a program plan, DOE would be required to establish an R&D program on alternatives to large industrial radioactive sources. This provision was not in the House and Senate bills.

Section 930: Deep Borehole Disposal of Spent Nuclear Fuel

DOE would be required to study the feasibility of deep borehole disposal of spent nuclear fuel and high-level radioactive waste. Boreholes could potentially go much deeper than the currently planned underground repository at Yucca Mountain, Nevada. This provision was taken from the House bill.

Subtitle E—Fossil Energy

Section 931: Fossil Energy Authorizations

Funding levels would be authorized for fossil energy R&D activities for FY2004-FY2008, including extended authorization for the Office of Arctic Energy for FY2004-FY2012. Institutions of higher learning would receive not less than 20% of funding during each fiscal year.

Section 932: Oil and Gas Research Programs

Oil and gas R&D programs would include gas hydrates, ultra-clean fuels, heavy oil, oil shale, and environmental research. Research into fuel cells and technology transfer are also specified. This section would require a report to Congress on natural gas reserves and resource estimates in federal and state waters off the coast of Louisiana and Texas. Based on the existing Clean Power and Energy Research Consortium, a national center or consortium of excellence in clean energy and power generation would be established to focus on gas turbines for power generation, emissions reduction, energy conservation, and education.

Section 933: Technology Transfer

A competitive program would be established to transfer DOE offshore oil and gas technology to the private sector.

Section 934: Coal Mining Technology

An R&D program on coal mining technologies would be established at DOE. Activities would reflect priorities of the Mining Industry of the Future Program along with guidance from National Academy of Sciences reports on mining technology. R&D would seek to minimize environmental contaminants, and develop techniques for horizontal drilling in coal beds for more efficient methane recovery.

Section 935: Coal and Related Technologies Programs

In addition to the clean coal programs authorized in Title IV, the Secretary of Energy would be required to conduct an R&D program on integrated gasification combined-cycle systems, turbines for synthesis gas from coal, carbon sequestration, and other coal-related technologies. Cost and performance goals would be established for the cost-competitive use of coal for electricity generation, as chemical feedstock, and as transportation fuel.

Section 936: Complex Well Technology Facility

This facility would be established at the Rocky Mountain Oilfield Testing Center to increase the range of extended drilling technologies.

Section 937: Fischer-Tropsch Diesel Fuel Loan Guarantee Program

Loan guarantees would be authorized for five years for facilities using the Fischer-Tropsch process to produce diesel fuel from coal.

Sections 941-949: Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Resources

Part II of Subtitle E would authorize and provide funding for a DOE oil and gas research awards program. Advances in seismic surveying, improved drilling methods, and other new technology have allowed oil and gas drilling at greater depths on the outer continental shelf and greater production of unconventional on-shore resources. While the OCS is a major source of domestic oil and gas supply, offshore drilling proposals often generate substantial environmental controversy.

Current Law

DOE R&D programs for natural gas and petroleum technologies are funded in the annual Department of the Interior and Related Agencies appropriations bill.

Conference Report

R&D would be directed toward the demonstration and commercial application of technology for ultra-deepwater oil and gas production, including unconventional oil and gas resources. The R&D program would be designed to benefit “small producers” and address environmental concerns. Complementary research would be carried out through DOE’s National Energy Technology Laboratory (**Sec. 941**). The Secretary of Energy could contract with a consortium to recommend ultra-deepwater research projects and manage funding awarded under this program (**Sec. 942**). The Secretary would make competitive awards to research consortia for conducting R&D on advanced technologies for recovering coalbed methane and other unconventional resources (**Sec. 943**).

The Secretary could reduce or eliminate the non-federal cost-share requirement for awards under this program, 2.5% of each award would be designated for technology transfer, and various additional award requirements would be stipulated (**Sec. 944**). An Ultra-Deepwater Advisory Committee and an Unconventional Resources Technology Advisory Committee would be established (**Sec. 945**) as would criteria for foreign participation (**Sec. 946**). The authority in this part would terminate at the end of FY2011 (**Sec. 947**). The terms deepwater, ultra-deepwater, unconventional oil and gas, independent producers of oil and gas, and others would be defined (**Sec. 948**).

The Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund would be established. *Revenues derived from federal oil and gas leases, after all previously mandated distributions of those revenues had been made, would be deposited in the fund, up to \$150 million annually during FY2004-FY2013.* During the same period, an *additional \$50 million per year (such sums as necessary)* would be authorized to be appropriated to the fund. The Secretary of Energy could obligate money from the fund for programs in this part without an

overall annual limit, although annual percentage allocations among the programs would be spelled out (**Sec. 949**).

Subtitle F—Science

Section 951: Science Authorizations

Appropriations would be authorized for the Office of Science for FY2004 through FY2008, with increases of 10%-15% per year. Within these totals, appropriations would be authorized for specific programs and activities of the Office. This provision is similar to the House bill but specifies more detailed allocations and incorporates changes in some of the funding levels.

Section 952: United States Participation in ITER

Authority would be given for the United States to participate in the international fusion energy experiment known as ITER. Criteria would be specified for any agreement on U.S. participation. DOE would be directed to develop a plan for ITER participation and have it reviewed by the National Academy of Sciences. Funds could not be expended for construction until the plan and other reports were provided to Congress. If construction of ITER appeared unlikely, DOE would be directed to submit a plan for an alternative experiment known as FIRE. This provision was in the House bill. A related provision was in the Senate bill.

The United States withdrew from the design phase of ITER in 1998 at congressional direction, largely because of concerns about cost and scope. The project has since been restructured, and in January 2003, the Administration announced its intention to reenter the project. Other international partners include the European Union, Japan, Russia, and China.

Section 953: Plan for the Fusion Energy Science Program

Competitiveness in fusion energy, including a demonstration of electric power or hydrogen production, would be declared to be U.S. policy. DOE would be directed to submit a plan to carry out that policy, subject to certain requirements. This provision, with some wording differences, was in the House bill. A related provision was in the Senate bill.

Section 954: Spallation Neutron Source

DOE would be directed to report on the Spallation Neutron Source (SNS), including its cost and schedule, in its annual budget submissions. DOE obligations for the SNS, including prior year costs, could not exceed \$1.2 billion (construction only) or \$1.4 billion (total). This provision, with some wording differences, was in the House bill.

Construction of the SNS is scheduled to be completed in 2006. Funding for the project began in FY1999.

Section 955: Support for Science and Energy Facilities and Infrastructure

DOE would be directed to develop, implement, and report on a strategy for its nondefense laboratories and research facilities. The House bill contained a similar provision, but the strategy called for by the House provision would only have covered the laboratories and facilities of the Office of Science, whereas the conference language also covers the Office of Energy Efficiency and Renewable Energy; Office of Fossil Energy; and Office of Nuclear Energy, Science, and Technology.

Section 956: Catalysis Research and Development Program

The Office of Science would be directed to support a program of catalysis R&D, which would conduct research on using precious metals in catalysis, design new catalytic compounds using molecular knowledge, and pursue other specified objectives. The National Academy of Sciences would review the program every three years. This provision of the conference report is essentially new, although the House and Senate bills contained less detailed provisions authorizing appropriations for certain types of catalysis research.

Section 957: Nanoscale Science and Engineering Research, Development, Demonstration, and Commercial Application

The Office of Science would be directed to support a program of research, development, demonstration, and commercial application in nanoscience and nanoengineering, with specified goals and characteristics. The program would include support for research centers and major instrumentation. The House and Senate bills contained similar provisions.

Section 958: Advanced Scientific Computing for Energy Missions

DOE would be directed to support advances in the nation's computing capability through research on grand challenge computational science problems. The Networking and Information Technology Research and Development Program would conduct research on topics specified in the bill and would be coordinated with related activities in DOE and elsewhere. DOE would have to report to Congress before undertaking any new initiative to develop advanced architectures for high-speed computing. This provision, with some wording differences, was in the House bill. A similar provision was in the Senate bill.

Section 959: Genomes to Life Program

DOE would be directed to establish a research, development, and demonstration program in genetics, protein science, and computational biology, with specified goals. DOE would have to submit a research plan for this program to Congress within one year and contract with the National Academy of Sciences to review the plan within an additional 18 months. Biomedical research and research related to humans would not be permitted as part of the program. A similar provision was in the House bill. The conference report broadened the House language to include national security among the program's goals and to specify in more detail the program's support for research facilities and equipment.

Section 960: Fission and Fusion Energy Materials Research Program

DOE would be directed to establish, in its FY2006 budget request, an R&D program on materials science for advanced fission reactors and fusion energy. This provision is new in the conference report. A related provision in the House bill called for a report on the status of materials for fusion energy.

Section 961: Energy-Water Supply Program

This section would establish, within the Department of Energy, the Energy-Water Supply Program for the purpose of studying (1) energy-related and other issues associated with the supply of drinking water and the operation of community water systems, and (2) water supply issues related to energy. The program would be directed to develop methods, means, procedures,

equipment, and improved technologies in three areas: (1) arsenic removal; (2) desalination; and (3) water and energy sustainability. The arsenic research program would be required, to the extent practicable, to evaluate the means to: reduce energy costs of arsenic removal technologies; minimize operating and maintenance costs; and minimize waste resulting from use of such technologies. The desalination program provisions would direct the Secretary to work with the Commissioner of Reclamation of the Department of the Interior on a desalination R&D program, and would authorize funds to be used for construction projects. This section also would direct the Secretary to develop a water and energy sustainability program to identify methods, means, and technologies necessary to ensure that sufficient quantities of water are available to meet energy needs and that sufficient energy is available to meet water needs. The Secretary would be required to assess future water resource and energy needs, and develop a program plan and a technology development roadmap for the Water and Energy Sustainability Program.

Section 962: Nitrogen Fixation

DOE would be directed to support a program of research, on nitrogen fixation. This provision was in the House bill.

Subtitle G—Energy and Environment

Section 964: U.S.-Mexico Energy Technology Cooperation

A collaborative research, development, and demonstration (RD&D) program would be established in the DOE Office of Environmental Management to promote energy-efficient and environmentally sound economic development along the U.S.-Mexico border. This provision aims to minimize public health risks from industrial activities in the border region. A five-year authorization would be provided.

Section 965: Western Hemisphere Energy Cooperation

The Secretary of Energy would be directed to conduct a cooperative effort with other nations of the Western Hemisphere to assist in formulating economic and other policies that increase energy supply and energy efficiency. Also, the Secretary would be directed to assist with the development and transfer of energy supply and efficiency technologies that would have a beneficial impact on world energy markets. To increase the program's credibility with other Western Hemisphere countries, the Secretary would be directed to seek participation from universities, including Hispanic-serving institutions and Historically Black Colleges and Universities. A five-year authorization would be established. This provision did not appear in either the House or Senate version.

Section 966: Waste Reduction and Use of Alternatives

DOE would be authorized to make a single grant to a university to study the feasibility of burning post-consumer carpet in cement kilns. A \$500,000 authorization would be established.

Section 967: Report on Fuel Cell Test Center

The Secretary of Energy would be required to study the establishment of a test center for advanced fuel cells at an institution of higher education. The report would present a conceptual design and cost estimates for the center.

Section 968: Arctic Engineering Research Center

DOE, with DOT and the U.S. Arctic Research Commission, would provide annual grants of \$3 million for FY2004-FY2009 through the DOE Arctic Energy Office to an adjacent university to establish and operate an Arctic Engineering Research Center in Fairbanks, Alaska. The Center would conduct research on improved methods of construction and materials to improve Arctic region roads, bridges, and other infrastructure.

Section 969: Barrow Geophysical Research Facility

The Department of Commerce, with DOE, DOI, EPA, and the National Science Foundation, would establish the Barrow Geophysical Research Facility to support Arctic scientific research activities. Appropriations of \$61 million would be authorized for the planning, design, construction, and support of the facility.

Section 970: Western Michigan Demonstration Project

EPA, in consultation with the State of Michigan and affected local officials, would be required to conduct a demonstration project to address the effect of transported ozone and ozone precursors on air quality in southwestern Michigan. The project would assess any difficulties the area may experience in meeting the 8-hour national ambient air quality standard for ozone due to the effect of transported ozone or ozone precursors. EPA would be required to complete the demonstration project within two years of the date of enactment and would be prohibited from imposing any requirement or sanction that might otherwise apply during the pendency of the demonstration project.

Subtitle H—Management

Section 971: Availability of Funds

Funds authorized under this title would remain available until expended. This provision was in the House bill.

Section 972: Cost Sharing

Cost sharing would be required for programs carried out under this title. The minimum non-federal share would be 20% for R&D programs and 50% for demonstration and commercial application programs, but DOE could lower or waive these requirements in certain circumstances. Similar provisions were in the House and Senate bills.

Section 973: Merit Review of Proposals

Awards of funds authorized under this title would be permitted only after an impartial review of scientific and technical merit. This provision was in the House bill. The Senate bill included a similar provision but specified an “independent review ... by the Department” rather than an “impartial review ... by *or for* the Department.”

Section 974: External Technical Review of Departmental Programs

Advisory boards would be established for DOE programs in energy efficiency, renewable energy, nuclear energy, and fossil energy. The requirement could be met by existing DOE boards or by boards established by arrangement with the National Academy of Sciences. Existing advisory

committees would continue for the programs of the Office of Science. The chairs of the Office of Science committees would constitute a Science Advisory Committee for the Director of the Office. This provision was in the House bill. A similar provision in the Senate bill would establish an additional advisory board for climate change technology and would omit the Science Advisory Committee of existing committee chairs.

Section 975: Improved Coordination of Technology Transfer Activities

A Technology Transfer Working Group would be established, made up of representatives from DOE's national laboratories and single-purpose research facilities. A Technology Transfer Coordinator would be designated to coordinate the working group's activities and oversee DOE technology transfer activities generally. This provision was in the House bill. A similar provision was in the Senate bill.

Section 976: Federal Laboratory Educational Partners

The Stevenson-Wydler Technology Innovation Act of 1980 would be amended so that royalties to the government from licensing of inventions and income to the government from cooperative R&D agreements (CRADAs) could be used for educational assistance as well as for scientific R&D and other currently permitted purposes. This provision was in the House bill.

Section 977: Interagency Cooperation

DOE and NASA would be directed to hold discussions leading to an interagency agreement that would make NASA expertise in energy more readily available to DOE. This provision was in the House bill.

Section 978: Technology Infrastructure Program

DOE would be directed to establish a program to help national laboratories and single-purpose research facilities stimulate the development of technology clusters, leverage and benefit from commercial activities, and exchange scientific and technological expertise with other organizations. A report would be required in 2006 on whether the program should continue and, if so, how it should be managed. A similar provision was in the Senate bill.

Section 979: Reprogramming

Within 60 days after any appropriation authorized under this title, DOE would be required to report to the appropriate authorizing committees on how the appropriated amounts would be distributed. Subsequent reprogramming would be limited to 5% unless reported to the same committee with at least 30 days' notice. This provision was in the House bill.

Section 980: Construction with Other Laws

DOE would be directed to carry out the programs under this title in accordance with other statutes that govern the operations of DOE and its programs. This provision was in the House bill.

Section 981: Report on Research and Development Evaluation Methodologies

DOE would be directed to arrange with the National Academy of Sciences for a study of evaluation methodologies for DOE's scientific and technical programs. This provision is new in the conference report.

Section 982: Department of Energy Science and Technology Scholarship Program

DOE would be authorized to establish a scholarship program to help recruit and prepare students for careers in DOE. Scholarship recipients would be required to work for DOE for 24 months per year of scholarship received. This provision, except a final subsection that authorizes appropriations, was in the House bill. The Senate bill contained a related provision regarding postdoctoral and senior research fellowships.

Section 983: Report on Equal Employment Opportunity Practices

DOE would be required to report to Congress every two years on equal employment opportunity practices at the national laboratories. This provision was in the House bill.

Section 984: Small Business Advocacy and Assistance

Each national laboratory would be required to establish a program of assistance to small businesses and to designate a small business advocate to increase the participation of small businesses in programs and to provide them with training and technical assistance. DOE could also require small business assistance and advocates at single-purpose research facilities. A similar provision was in both the House and the Senate bills.

Section 985: Report on Mobility of Scientific and Technical Personnel

DOE would be required to report on disincentives to the transfer of scientific and technical personnel among the contractor-operated national laboratories and single-purpose research facilities. This provision was in the House bill. A similar provision was in the Senate bill.

Section 986: Report on Obstacles to Commercial Application

DOE would be directed to arrange with the National Academy of Sciences for a study of obstacles to accelerating commercial application of energy technology and of DOE policies for technology transfer-related disputes between DOE contractors and the private sector. This provision was in the House bill. The Senate bill included a related provision on acceleration of the energy R&D cycle.

Section 987: Outreach

DOE would be directed to include an information outreach component in each program authorized by this title. This provision was in the House bill.

Section 988: Competitive Award of Management Contracts

Management and operating contracts for DOE non-military energy laboratories would have to be awarded competitively unless the Secretary of Energy granted a waiver on a case-by-case basis. The Secretary would not be permitted to delegate his waiver authority and would have to give Congress 60-days' notice before awarding a non-competitive contract. This provision was in the House bill.

In the past, management contracts at most DOE laboratories have been extended without competition. In some cases, laboratories have been managed by the same contractor for 50 years or more. In November 2003, DOE released the report of a blue-ribbon commission that it

established to examine this issue. The commission's report is available online at <http://www.seab.doe.gov/publications/brcDraftRpt.pdf>. It states, "the issue of whether competition should be routinely used for research and development laboratories is subject to wide and varied opinions."

Section 989: Educational Programs in Science and Mathematics

Competitive events for students, designed to encourage interest in science and mathematics, would be added to the list of authorized education activities that may be conducted through DOE R&D facilities. This provision is new in the conference report.

Title X—Department of Energy Management

Section 1001: Additional Assistant Secretary Position

The DOE Organization Act (42 U.S.C. 7133) would be amended to increase the number of assistant secretary positions from six to seven. It would be the sense of Congress that DOE nuclear programs, currently headed by a director, be headed by an assistant secretary. This provision was taken from the Senate bill.

Section 1002: Other Transactions Authority

This would amend Section 646 of the DOE Organization Act (42 U.S.C. 7256) to allow the Energy Secretary to enter into additional transactions furthering research, development, or demonstration without requiring that title to inventions be vested in the federal government as currently specified by Section 9 of the Federal Nonnuclear Energy Research and Development Act of 1974 (42 U.S.C. 5908) or section 152 of the Atomic Energy Act of 1954 (42 U.S.C. 2182). This section is similar to a provision in the Senate version of H.R. 6.

Title XI—Personnel and Training

Section 1101: Training Guidelines for Electric Energy Industry Personnel

The Secretary of Energy, in consultation with the Secretary of Labor, along with electric industry representatives and employee representatives, would be required to develop model personnel training guidelines to support the reliability and safety of the electric system.

Section 1102: Improved Access to Energy-Related Scientific and Technical Careers

DOE education programs would be required to give priority to activities that encourage women and minorities to pursue scientific and technical careers. DOE national laboratories (and other DOE science facilities if so directed by the Secretary) would be directed to increase the participation of Historically Black Colleges and Universities, Hispanic-serving institutions, and tribal colleges in activities such as research, equipment transfer, training, and mentoring. DOE would be required to report on activities under this section within two years of enactment. The Senate bill included a similar provision.

Section 1103: National Power Plant Operations Technology and Education Center

DOE would establish a National Power Plant Operations Technology and Education Center for on-site and Internet-based training of certified operators for non-nuclear electric power generation plants.

Section 1104: International Energy Training

DOE, with the Departments of Commerce, Interior, and State, and FERC, would coordinate training and outreach efforts for international commercial energy markets in countries with developing and restructuring economies. Annual appropriations of \$1.5 million for FY2004-FY2007 would be authorized.

Title XII—Electricity

Title XII of the H.R. 6 conference report deals with electric power issues. In part, this title would create an electric reliability organization (ERO) that would enforce mandatory reliability standards for the bulk-power system. All ERO standards would be approved by the Federal Energy Regulatory Commission (FERC). Under this title, the ERO could impose penalties on a user, owner, or operator of the bulk-power system that violates any FERC-approved reliability standard. This title also addresses transmission infrastructure issues. The Secretary of Energy would be able to certify congestion on the transmission lines and issue permits to transmission owners. Permit holders would be able to petition in U.S. District Court to acquire rights-of-way for the construction of transmission lines through the exercise of the right of eminent domain.

FERC's Standard Market Design notice of proposed rulemaking would be remanded to the Commission. The conference report would clarify native load service obligation. Federal utilities would be allowed to participate in regional transmission organizations.

The electricity title would repeal provisions of the Public Utility Regulatory Policies Act (PURPA)⁹ that require utilities to purchase power from specified outside sources for a price equal to the cost they would have incurred to generate the additional power themselves, as determined by utility regulators. The Public Utility Holding Company Act of 1935 (PUHCA, 15 U.S.C. 79 et seq.) would be repealed. FERC and state regulatory bodies would be given access to utility books and records.

FERC would be required to issue rules to establish an electronic system that provides information about the availability and price of wholesale electric energy and transmission services. For wholesale electric rates that the Commission finds to be unjust, unreasonable, or unduly discriminatory, the effective date for refunds would begin at the time of the filing of a complaint with FERC but not later than five months after filing of a complaint. Criminal and civil penalties would be increased.

The Secretary of Energy would be required to transmit to Congress a study on whether FERC's merger review authority duplicates other agencies' authority. The Federal Power Act (FPA, 16 U.S.C. 791 et seq.) would be amended to give FERC review authority for transfer of assets valued in excess of \$10 million.

⁹ P.L. 95-617, codified primarily in 16 U.S.C. 2601 et seq.

Section 1201: Short Title

This title may be cited as the “Electric Reliability Act of 2003.”

Subtitle A — Reliability Standards

Section 1211: Electric Reliability Standards

This section would require the Federal Energy Regulatory Commission (FERC) to promulgate rules within 180 days of enactment to create a FERC-certified electric reliability organization (ERO). The ERO would develop and enforce reliability standards for the bulk-power system. All ERO standards would be approved by FERC. Under this title, the ERO could impose penalties on a user, owner, or operator of the bulk-power system that violates any FERC-approved reliability standard. In addition, FERC could order compliance with a reliability standard and could impose a penalty if FERC finds that a user, owner, or operator of the bulk-power system has engaged in, or is about to engage in, a violation of a reliability standard. This provision would not give an ERO or FERC authorization to order construction of additional generation or transmission capacity.

This section would also require that FERC establish a regional advisory body if requested by at least two-thirds of the states within a region that have more than half of their electric load served within that region. The advisory body would be composed of one member from each participating state in the region, appointed by the governor of each state, and could provide advice to the ERO or FERC on reliability standards, proposed regional entities, proposed fees, and any other responsibilities requested by FERC. The entire reliability provision would not apply to Alaska or Hawaii.

Subtitle B—Transmission Infrastructure Modernization

Section 1221: Siting of Interstate Electric Transmission Facilities

Every three years, the Secretary of Energy would be required to conduct a study of electric transmission congestion. Based on the findings, the Secretary could designate a geographic area as being congested. Under certain conditions, FERC would be authorized to issue construction permits. Under proposed new Federal Power Act Section 216(d), affected states, federal agencies, Indian tribes, property owners, and other interested parties would have an opportunity to present their views and recommendations with respect to the need for, and impact of, a proposed construction permit. However, there is no requirement for a specific comment period. New FPA section 216(e) would allow permit holders to petition in U.S. District Court to acquire rights-of-way through the exercise of the right of eminent domain. Any exercise of eminent domain authority would be considered to be takings of private property for which just compensation is due from permit holders. New FPA Section 216(g) does not state whether property owners would be required to reimburse compensation paid by permit holders if the rights-of-way were transferred back to the owner.

Under this section, an applicant for federal authorization to site transmission facilities on federal lands could request that the Department of Energy, rather than the Department of the Interior or other land-managing agency, be the lead agency to coordinate environmental review and other federal authorization. Once a completed application was submitted, all related environmental reviews would be required to be completed within one year unless another federal law makes that impossible. FPA section 216(h) would give the Department of Energy (DOE) new authority to

prepare environmental documents and appears to give DOE additional decision-making authority for rights-of-way and siting on federal lands. This could give DOE input into the decision process for creating rights-of-way. By allowing reliance on prior analysis, this section could shorten or otherwise affect review under Section 503 of the Federal Land Policy and Management Act. If a federal agency has denied an authorization required by a transmission or distributions facility, the denial could be appealed by the applicant or relevant state to the Secretary of Energy. The Secretary of Energy would be required to issue a decision within 90 days after the filing of an appeal. States could enter into interstate compacts for the purposes of siting transmission facilities and the Secretary of Energy could provide technical assistance. This section would not apply to the Electric Reliability Council of Texas (ERCOT). A similar provision was included in the House-passed H.R. 6.

Section 1222: Third-Party Finance

The Western Area Power Administration (WAPA) and the Southwestern Power Administration (SWPA) would be able either to continue to design, develop, construct, operate, maintain, or own transmission facilities within their regions or to participate with other entities for the same purposes if: the Secretary of Energy designated the area as a National Interest Electric Transmission Corridor and the project would reduce congestion, or the project was needed to accommodate projected increases in demand for transmission capacity. The project would need to be consistent with the needs identified by the appropriate regional transmission organization (RTO) or independent system operator (ISO). No more than \$100 million from third-party financing may be used during fiscal years 2004 through 2013. This section was not included in either the House- or Senate-passed H.R. 6.

Section 1223: Transmission System Monitoring

Within six months of enactment, the Secretary of Energy and the Federal Energy Regulatory Commission would be required to complete a study and report to Congress on what would be required to create and implement a transmission monitoring system for the Eastern and Western interconnections. The monitoring system would provide all transmission system owners and regional transmission organizations real-time information on the operating status of all transmission lines. This section was not included in either the House- or Senate-passed H.R. 6.

Section 1224: Advanced Transmission Technologies

FERC would be directed to encourage deployment of advanced transmission technologies. This section was not included in either the House- or Senate-passed H.R. 6.

Section 1225: Electric Transmission and Distribution Programs

The Secretary of Energy acting through the Director of the Office of Electric Transmission and Distribution would be required to implement a program to promote reliability and efficiency of the electric transmission system. Within one year of enactment, the Secretary of Energy would be required to submit to Congress a report detailing the program's five-year plan. Within two years of enactment, the Secretary of Energy would be required to submit to Congress a report detailing the progress of the program. The Secretary of Energy would be directed to establish a research, development, demonstration and commercial application initiative that would focus on high-temperature superconductivity. For this project, appropriations would be authorized for FY2004 through FY2008. In part, a similar provision was included in the House-passed H.R. 6.

Section 1226: Advanced Power System Technology Incentive Program

A program would be established to provide incentive payments to owners or operators of advanced power generation systems. Eligible systems would include power generation or storage facilities using “an advanced fuel cell, turbine, or hybrid power system.” A total of \$140 million would be authorized for FY2004 through FY2008. A similar provision was included in the House-passed H.R. 6. In the House-passed version, \$70 million would have been authorized for FY2004 through FY2010.

Section 1227: Office of Electric Transmission and Distribution

This section would amend Title II of the Department of Energy Organization Act¹⁰ and would establish an Office of Electric Transmission and Distribution. The Director of the office would, in part, coordinate and develop a strategy to improve electric transmission distribution, implement recommendations from the Department of Energy’s National Transmission Grid Study, oversee research, development, and demonstration to support federal energy policy related to electricity transmission and distribution, and develop programs for workforce training and power transmission engineering. This section was not included in either the House- or Senate-passed H.R. 6.

Subtitle C—Transmission Operation Improvements

Section 1231: Open Nondiscriminatory Access

FERC would be authorized, by rule or order, to require unregulated transmitting utilities (power marketing administrations, state entities, and rural electric cooperatives) to transmit electricity for others at rates comparable to what they charge themselves and would require that the terms and conditions of such transactions also be comparable. Exemptions would be established for utilities selling less than 4 million megawatt-hours of electricity per year, for distribution utilities, and for utilities that own or operate transmission facilities that are not necessary to facilitate a nationwide interconnected transmission system. This exemption could be revoked to maintain transmission system reliability. FERC would not be authorized to order states or municipalities to take action under this section if such action would constitute a private use under section 141 of the Internal Revenue Code of 1986. FERC may remand transmission rates to an unregulated transmitting utility if the rates do not comply with this section. FERC is not authorized to order an unregulated transmitting utility to join a regional transmission organization or other FERC-approved independent transmission organization. This section is often referred to as “FERC-lite.” Provisions on open access were included in both the House- and Senate-passed H.R. 6, but the conference language differed. Termination of exemptions for reliability purposes does not appear in either the House- or Senate-passed H.R. 6.

Section 1232: Sense of Congress on Regional Transmission Organizations

This section would establish a sense of Congress that utilities should voluntarily become members of regional transmission organizations. A similar provision was included in the House- and Senate-passed H.R. 6.

¹⁰ 42 U.S.C. 7131 et seq.

Section 1233: Regional Transmission Organization Applications Progress Report

FERC would be required to report to Congress within 120 days of enactment the status of all regional transmission organization applications. Similar language was included in the House-passed H.R. 6.

Section 1234: Federal Utility Participation in Regional Transmission Organizations

Federal utilities (power marketing administrations or the Tennessee Valley Authority) would be authorized to participate in regional transmission organizations. A law allowing federal utilities to study formation and operation of a regional transmission organization would be repealed.¹¹ A similar provision was included in the House-passed H.R. 6.

Section 1235: Standard Market Design

FERC's proposed rulemaking on standard market design (SMD) would be remanded to FERC for reconsideration (Docket No. RM01-12-000). SMD is a proposed system to provide uniform market procedures for wholesale electric power transactions. No final rulemaking, including any rule or order of general applicability to the standard market design proposed rulemaking, could be issued before October 31, 2006, or could take effect before December 31, 2006. This section would retain FERC's ability to issue rules or orders and act on regional transmission organization or independent system operator filings. H.R. 6, as passed by the House and Senate, did not include a similar provision.

Section 1236: Native Load Service Obligation

This section would amend the Federal Power Act to clarify that a load-serving entity is entitled to use its transmission facilities or firm transmission rights to serve its existing customers before it is obligated to make its transmission capacity available for other uses. FERC would not be able to change any approved allocation of transmission rights by an RTO or ISO approved prior to September 15, 2003. A similar provision was included in the House-passed H.R. 6.

Section 1237: Study on the Benefits of Economic Dispatch

The Secretary of Energy, in consultation with the states, would be required to issue an annual report to Congress and the states on the current status of economic dispatch. Economic dispatch would be defined as "the operation of generation facilities to produce energy at the lowest cost to reliably serve consumers, recognizing any operational limits of generation and transmission facilities." This section was included in the House-passed H.R. 6.

Subtitle D—Transmission Rate Reform

Section 1241: Transmission Infrastructure Investment

FERC would be required to establish a rule to create incentive-based transmission rates. FERC would be authorized to revise the rule. The rule would promote reliable and economically efficient electric transmission and generation, provide for a return on equity that would attract

¹¹ 16 U.S.C. 824n.

new investment in transmission, encourage use of technologies that increased the transfer capacity of existing transmission facilities, and allow for the recovery of all prudently incurred costs that are necessary to comply with mandatory reliability standards. In addition, FERC would be directed to implement incentive rate-making for utilities that join a regional transmission organization or Independent System Operator. The House-passed H.R. 6 did not include reliability in the proposed FERC rule.

Section 1242: Voluntary Transmission Pricing Plans

This would amend the Federal Power Act to allow any transmission provider including a regional transmission organization or Independent System Operator to determine how the cost of new transmission facilities would be allocated. The cost of all transmission expansion, except what is required for reliability purposes, would be assigned so that those who benefit from the addition of the transmission would pay an appropriate share of the costs. This is referred to as participant funding. This provision would protect native load customers from paying for transmission upgrades needed for new generator interconnection if the new generation is not required by the native load (the demand of the utility's existing customers.) Participant funding was included in the House-passed H.R. 6.

Subtitle E—Amendments to PURPA

Section 1251: Net Metering and Additional Standards

States that have not considered implementation and adoption of net metering standards would be required within three years of enactment to consider such implementation. Net metering service is defined as: service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility (e.g., solar or small generator) and delivered to local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period. Net metering provisions were included in the House- and Senate-passed H.R. 6.

Section 1252: Smart Metering

For states that have not considered implementation and adoption of a smart metering standard, state regulatory authorities would be required to initiate an investigation within one year of enactment, and issue a decision within two years of enactment whether to implement a standard for time-based meters and communications devices for all electric utility customers. These devices would allow customers to participate in time-based pricing rate schedules. This section would amend the Public Utility Regulatory Policies Act of 1978¹² (PURPA) and would require the Secretary of Energy to provide consumer education on advanced metering and communications technologies, to identify and address barriers to adoption of demand response programs, and issue a report to Congress that identifies and quantifies the benefits of demand response. The Secretary of Energy would provide technical assistance to regional organizations to identify demand response potential and to develop demand response programs to respond to peak demand or emergency needs. FERC would be directed to issue an annual report, by region, to assess demand response resources. A provision for real-time pricing and time-of-use metering standards was included in the House- and Senate-passed H.R. 6.

¹² P.L. 95-617.

Section 1253: Cogeneration and Small Power Production Purchase and Sale Requirements

This section would repeal the mandatory purchase requirement under Section 210 of PURPA for new contracts if FERC finds that a competitive electricity market exists and a qualifying facility has access to independently administered, auction-based, day-ahead, and real-time wholesale markets, and long-term wholesale markets. Qualifying facilities would also need to have access to transmission and interconnection services provided by a FERC-approved regional transmission entity that provides non-discriminatory treatment for all customers. Ownership limitations under PURPA would be repealed. Repeal of the mandatory purchase requirement was included in the House- and Senate-passed H.R. 6.

Subtitle F—Repeal of PUHCA

Section 1261: Short Title

This subtitle may be cited as the “Public Utility Holding Company Act of 2003.”

Section 1262: Definitions

This section would provide definitions for: affiliate, associate company, commission, company, electric utility company, exempt wholesale generator and foreign utility company, gas utility company, holding company, holding company system, jurisdictional rates, natural gas company, person, public utility, public-utility company, state commission, subsidiary company, and voting security.

Section 1263: Repeal of the Public Utility Holding Company Act of 1935

The Public Utility Holding Company Act of 1935 (PUHCA) would be repealed. The provision to repeal PUHCA was included in both the House- and Senate-passed H.R. 6.

Section 1264: Federal Access to Books and Records

Federal access to books and records of holding companies and their affiliates would be provided. Affiliate companies would have to make available to FERC books and records of affiliate transactions. Federal officials would have to maintain confidentiality of such books and records. A similar provision was included in the House-and Senate-passed H.R. 6.

Section 1265: State Access to Books and Records

A jurisdictional state commission would be able to make a reasonably detailed written request to a holding company or any associate company for access to specific books and records, which would be kept confidential. Response to such a request would be mandatory. Compliance with this section would be enforceable in U.S. District Court. This section would not apply to an entity that was considered to be a holding company solely by reason of ownership of one or more qualifying facilities. A similar provision was included in the House -and Senate-passed H.R. 6.

Section 1266: Exemption Authority

FERC would be directed to promulgate rules to make qualifying facilities, exempt wholesale generators, and foreign utilities exempt from the requirement for federal access to books and

records in **Section 1264**. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1267: Affiliate Transactions

FERC would retain the authority to prevent cross-subsidization and to assure that jurisdictional rates are just and reasonable. FERC and state commissions would retain jurisdiction to determine whether associate company activities could be recovered in rates. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1268: Applicability

Except as specifically noted, this subtitle would not apply to the U.S. government, a state or any political subdivision of the state, or foreign governmental authority operating outside the U.S. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1269: Effect on Other Regulations

FERC or state commissions would not be precluded from exercising their jurisdiction under otherwise applicable laws to protect utility customers. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1270: Enforcement

FERC would have authority to enforce this provision under sections 306-317 of the Federal Power Act. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1271: Savings Provisions

Persons would be able to continue to engage in legal activities in which they have been engaged, or are authorized to engage in, on the effective date of this Act. This subtitle would not limit the authority of FERC under the Federal Power Act or the Natural Gas Act. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1272: Implementation

Not later than 12 months after enactment, FERC would be required to promulgate regulations necessary to implement this subtitle and submit to Congress recommendations for technical or conforming amendments to federal law that would be necessary to carry out this subtitle. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1273: Transfer Resources

The Securities and Exchange Commission would be required to transfer all applicable books and records to FERC. However, no time frame for transfer of books and records is provided. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1274: Effective Date

Twelve months after enactment, this subtitle would take effect.

Section 1275: Service Allocation

FERC would be required to review and authorize cost allocations for non-power goods or administrative or management services provided by an associate company that was organized specifically for the purpose of providing such goods or services. This section would not preclude FERC or state commissions from exercising their jurisdiction under other applicable laws with respect to review or authorization of any costs. FERC would be required to issue rules within six months of enactment to exempt from the section any company and holding company system if operations are confined substantially to a single state. This section was not included in either the House- or Senate-passed H.R. 6.

Section 1276: Authorization of Appropriations

Necessary funds to carry out this subtitle would be authorized to be appropriated. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1277: Conforming Amendments to the Federal Power Act

The Federal Power Act would be amended to reflect the changes to the Public Utility Holding Company Act of 1935.¹³

Subtitle G—Market Transparency, Enforcement, and Consumer Protection

Section 1281: Market Transparency Rules

Within 180 days after enactment, FERC would be required to issue rules to establish an electronic system that provides information about the availability and price of wholesale electric energy and transmission services. FERC would exempt from disclosure any information that, if disclosed, could be detrimental to the operation of the effective market or jeopardize system security. FERC would be required to assure that consumers in competitive markets are protected from adverse effects of potential collusion or other anti-competitive behaviors that could occur as a result of untimely public disclosure of transaction-specific information. This section would not affect the exclusive jurisdiction of the Commodity Futures Trading Commission with respect to accounts, agreement, contracts, or transactions in commodities under the Commodity Exchange Act. FERC would not be allowed to compete with, or displace, any price publisher or regulate price publishers or impose any requirements on the publication of information. Creation of market transparency rules was included in the House- and Senate-passed H.R. 6.

Section 1282: Market Manipulation

It would be unlawful to willfully and knowingly file a false report on any information relating to the price of electricity sold at wholesale or the availability of transmission capacity with the intent to fraudulently affect data being compiled by a federal agency. It would be unlawful for any individual, corporation, or government entity (municipality, state, or power marketing administration) to engage in round-trip electricity trading. Round-trip trading is defined to include

¹³ Current jurisdiction of the Securities and Exchange Commission under the Public Utility Holding Company Act of 1935 is referenced by 16 U.S.C. 825q; 16 U.S.C. 824(g)(5), and 16 U.S.C. 824m.

contracts in which purchase and sale transactions have no specific financial gain or loss and are entered into with the intent to distort reported revenues, trading volumes, or prices.

Section 1283: Enforcement

The Federal Power Act would be amended to allow electric utilities to file a complaint with FERC and to allow complaints to be filed against transmitting utilities. Criminal and civil penalties under the Federal Power Act would be increased. Criminal penalties would not exceed \$1 million and/or five years imprisonment. In addition, a fine of \$25,000 could be imposed. A civil penalty not exceeding \$1 million per day per violation could be assessed for violations of sections 211, 212, 213, or 214 of the Federal Power Act.

Section 1284: Refund Effective Date

Section 206(b) of the Federal Power Act would be amended to allow the effective date for refunds to begin at the time of the filing of a complaint with FERC but not later than five months after such a filing. If FERC does not make its decision within the time-frame provided, FERC would be required to state its reasons for not acting in the provided time-frame for the decision. A similar provision was included in the House- and Senate-passed H.R. 6.

Section 1285: Refund Authority

Any entity that is not a public utility (including an entity referred to under Section 201(f) of the Federal Power Act) and enters into a short-term sale of electricity would be subject to the FERC refund authority. A short-term sale would include any agreement to the sale of electric energy at wholesale that is for a period of 31 days or less. This section would not apply to electric cooperatives, or any entity that sells less than 8 million megawatt hours of electricity per year. FERC would have refund authority over voluntary short-term sales of electricity by Bonneville Power Administration if the rates charged are unjust and unreasonable. FERC would have authority over all power marketing administrations and the Tennessee Valley Authority to order refunds to achieve just and reasonable rates. Refund authority was provided for in the House-passed H.R. 6.

Section 1286: Sanctity of Contract

Upon determining that failure to take action would be contrary to protection of the public interest, FERC would be authorized to modify or abrogate any contract entered into after enactment of this section. FERC would not be able to abrogate or modify contracts that expressly provide for a standard of review other than the public interest standard. A similar provision was included in the House-passed H.R. 6.

Section 1287: Consumer Privacy and Unfair Trade Practices

The Federal Trade Commission would be authorized to issue rules to prohibit slamming and cramming. Slamming occurs when an electric utility switches the customer's electric provider without the consumer's knowledge. Cramming occurs when an electric utility adds additional services and charges to a customer's account without permission of the customer. If the Federal Trade Commission determines that a state's regulations provide equivalent or greater protection, then the state regulations would apply in lieu of regulations issued by the Federal Trade Commission. The House-and Senate-Passed H.R. 6 would have required the Federal Trade Commission to issue rules to prohibit slamming and cramming.

Subtitle H—Merger Reform

Section 1291: Merger Review Reform and Accountability

Within 180 days of enactment, the Secretary of Energy would be required to transmit to Congress a study on whether FERC’s merger review authority is duplicative with other agencies’ authority and that would include recommendations for eliminating any unnecessary duplication. FERC would be required to issue an annual report to Congress describing all conditions placed on mergers under section 203(b) of the Federal Power Act. FERC would also be required to include in its report whether such a condition could have been imposed under any other provision of the Federal Power Act. A similar provision was included in the House-passed H.R. 6.

Section 1292: Electric Utility Mergers

The Federal Power Act would be amended to give FERC review authority for transfer of assets valued in excess of \$10 million. FERC would be required to give state public utility commissions and governors reasonable notice in writing. FERC would be required to establish rules to comply with this section. A similar provision was included in the Senate-passed H.R. 6.

Subtitles I and J—Definitions and Conforming Amendments

Section 1295: Definitions

The definitions for “electric utility” and “transmitting utility” under the Federal Power Act would be amended. Definitions for the following terms would be added to the Federal Power Act: electric cooperative, regional transmission organization, independent system operator, and commission.

Section 1297: Conforming Amendments

The Federal Power Act would be amended to conform with this title.

Title XIII—Energy Tax Incentives

Sections 1300-1366

These sections are not addressed in this report. For information on these sections, see CRS Report RL32042, *Energy Tax Incentives in H.R. 6: The Conference Agreement as Compared with the House Bill and Senate Amendment*.

Title XIV—Miscellaneous

Subtitle A — Rural and Remote Electricity Construction

Section 1401: Denali Commission

Established in 1998 by P.L. 105-277, the Denali Commission is a federal-state partnership designed to provide critical utilities, infrastructure, and economic support throughout Alaska. The conference report would authorize up to \$5 million annually to the Commission during FY2005-

FY2011 for the Power Cost Equalization Program. *The legislation also would make available up to \$50 million annually during the period FY2004-FY2013, drawing upon federal royalties, rents, and bonuses from oil and gas leases in the National Petroleum Reserve in Alaska (NPR-A). **This funding must be appropriated.*** These funds would be used, among other purposes, for energy generation and development ranging from alternative sources to fossil fuels.

Section 1402: Rural and Remote Community Assistance

This section encourages grants and loans to help rural communities where the electricity cost per kilowatt-hour is 150% of the national average, grants and loans to the Denali Commission for similar purposes, and grants for areas where fuel cannot be shipped by surface transportation.

Subtitle B—Coastal Programs

Section 1411: Royalty Payments Under Certain Leases

The lessee of a “covered lease tract” off the coast of Louisiana would be allowed to withhold royalties due to the United States if it paid the state of Louisiana 44 cents for every dollar of the federal royalty withheld. This royalty relief would end when certain drainage claims were satisfied. This provision was taken from the House bill. **The date that this section takes effect is changed from 2004 to 2008.**

Section 1412: Domestic Offshore Energy Reinvestment

This would add a new Section 32 at the end of the Outer Continental Shelf Lands Act (43 U.S.C. 1331 et. seq.) to return a portion of the federal revenues from offshore energy activities to affected coastal states to fund specified activities. Representatives of states with offshore energy development have been seeking to return a significant portion of the federal revenues generated to these states, and particularly the coastal areas within these states that may be more affected by onshore and near-shore activities that support that development. Proponents of these proposals look to the rates at which funds are given to jurisdictions where energy development occurs within those jurisdictions on federal lands, and seek revenues that will help coastal states respond to adverse onshore effects of offshore energy development. Coastal destruction has received more attention in Louisiana, where many square miles of wetlands are being lost to the ocean each year.

A federal program to address the impacts of coastal energy development was enacted during the energy crisis of the late 1970s. Called the Coastal Energy Impact Assistance Program, it operated briefly, providing loans and grants to states through the federal Coastal Zone Management Program.

Current Law

There is no comparable program operating under in current law.

Conference Agreement

The conference agreement would create a new Domestic Offshore Energy Reinvestment Program. The program would be funded from a new Secure Energy Reinvestment Fund. The fund would receive deposits of all qualified revenues from energy activities on the outer continental shelf (OCS). **All spending from the fund would be subject to appropriation.** These revenues would include \$35 million in royalty income each year, plus all royalty income above a specified amount that would generally increase annually (starting at \$3.455 billion in FY2004 and ending

at \$5.120 billion in FY2013), bonus bid income above \$1 billion each year, interest income earned by the fund, authorized appropriations of up to \$500 million annually, and repayments made because a recipient did not follow an approved plan when spending the money. If the royalty income were inadequate, deposits into this fund and two other federal funds that already receive money from this source (Land and Water Conservation Fund and Historic Preservation Fund) would be reduced by the same proportion. The Congressional Budget Office has reportedly estimated that the fund would total about \$1 billion, and that Louisiana would receive almost 50% of this amount. However, any changes in assumptions could make the estimate vary greatly.

Coastal states where energy activities occur offshore and coastal political subdivisions in those states would be eligible to receive money from the fund. Eligible states and political subdivisions are defined in the legislation. Allocations among eligible states would be determined by a formula that accounts for energy revenues generated offshore in federal waters that lie between outward extensions of the state's lateral boundaries over the past 10 years. Each coastal state is to pass along 35% of the total it receives to eligible coastal political subdivisions, with the allocation among these subdivisions in each state to be based on a formula that considers population, length of coastline, distance from leased tracts, and amount of outer continental shelf support activities within that subdivision.

Each state could use these funds to implement a plan it develops that would improve environmental quality and address the impacts of offshore energy activities. All plans must be approved by the Secretary of the Interior before states could receive funds. Plans must describe how recipients will evaluate the effectiveness of their implementation efforts. Each eligible state with an approved plan would receive at least 5% of the total available amount each year. Authorized uses of the funds would be limited to (1) conserving, protecting or restoring coastal areas, including wetlands; (2) mitigating damage to or protecting fish, wildlife, or natural resources; (3) paying reasonable planning assistance and administrative costs; (4) implementing federally approved plans or programs to minimize the effects of natural disasters, and; (5) funding onshore infrastructure and public service projects that mitigate impacts of outer continental shelf activities. Revisions and amendments to plans would have to be approved by the Secretary. In addition, a new coastal restoration program would be established using 2% of the funds available each year to assess the effects of coastal habitat restoration techniques and develop new technologies, develop improved models to predict ecosystem change, and identify economic options to address socio-economic consequences of coastal degradation. This program would be administered by the Secretaries of the Interior and Commerce. In addition to the 2% funding, an appropriation of \$10 million annually would be authorized.

Policy Context

This is the most recent of repeated efforts to allocate a portion of federal offshore oil and gas revenues to coastal states to assist them in addressing the impacts of these activities. Recent Congresses, starting with the 105th, considered numerous similar legislative proposals. These proposals came to be known as CARA, or the Conservation and Reinvestment Act. In the 106th Congress, the House passed a version of CARA on May 11, 2000 (H.R. 701). Some of these proposals were also reflected in the Clinton Administration's Lands Legacy Initiative proposal in 2000, and also a one-time \$150 million appropriation provided in the FY2001 Commerce appropriations legislation (P.L. 106-553) for coastal impact assistance.

Support for the CARA proposals, which would also have funded many related federal natural resource protection programs, grew as the deficit of the early and mid-1990s was replaced by forecasts of a surplus, as protecting natural resources came to be viewed as part of the effort to address sprawl, and as efforts and support to secure federal funding for coastal resource

protection and restoration efforts grew. With the replacement of the surplus forecast with deficit forecasts and changing national priorities since the 9/11 terrorist attacks, broad support for wide-ranging legislation like CARA has declined, but interest has remained in returning a portion of the money currently paid to the federal government by private companies leasing offshore areas to those locations most affected by the offshore activity.

Subtitle C—Reforms to the Board of Directors of TVA

Sections 1431-1434: Changes to Board of Directors and Staff Appointments

Currently, three people are appointed by the President to serve on the Tennessee Valley Authority (TVA) Board for nine-year terms. The President also designates the chairman. Historically, the board members have been involved in the day-to-day operation of TVA. The conference bill would establish a Chief Operating Officer (CEO), who would have the authority to offer competitive salaries to top executives. The number of presidential appointments to the TVA Board would expand to nine; however, the term length would be shortened to five years, and board members would meet quarterly to serve principally in an oversight function. The board members would designate the chairman.

Subtitle D—Other Provisions

Section 1441: Continuation of Transmission Security Order

On August 28, 2003, the Secretary of Energy issued Order No. 202-03-2, allowing the Cross Sound Cable between Connecticut and Long Island to begin transmitting electric power. The conference bill would require the order to remain in effect unless rescinded by federal statute.

Section 1442: Review of Agency Determinations on Gas Projects

This section would amend the Natural Gas Act, giving the D.C. Circuit Court of Appeals exclusive jurisdiction over disputes involving “unreasonable delay” of a natural gas pipeline project certificated by FERC. Unreasonable delay would mean the failure of a permitting agency to take action within a year after the date of filing for the permit in question, or within 60 days after the issuance of a FERC certificate. There is no explicit timeline in existing law for issuance of ancillary permits and licenses, and that would consolidate authority in one court. This fast-tracking measure would address delays occurring after FERC had issued a certificate giving a pipeline project the go-ahead. The provision is directed at delays by other agencies in issuing environmental permits and other approvals needed to begin construction of a certificated project.

Section 1443: Attainment Dates for Downwind Ozone Nonattainment Areas

This section, which was not in the House or Senate versions of the bill but was added during the conference, would extend Clean Air Act deadlines for areas that have not attained ozone air quality standards if upwind areas “significantly contribute” to their nonattainment. Under the 1990 Clean Air Act Amendments (P.L. 101-549), ozone nonattainment areas were classified in one of five categories: Marginal, Moderate, Serious, Severe, or Extreme. Areas with higher concentrations of the pollutant were given more time to reach attainment. In return for the additional time, they were required to implement more stringent controls on emissions. Failure to reach attainment by the specified deadline was to result in reclassification of an area to the next higher category and the imposition of more stringent controls. Areas such as Dallas-Fort Worth,

for example, classified as Serious, were required to reach attainment by 1999. If they did not do so, the law required that they be reclassified (or “bumped up”) to the Severe category, with a new deadline of 2005, and more stringent controls.

For a variety of reasons, EPA has generally not reclassified areas when they failed to reach attainment by the statutory deadlines. In several cases, the agency granted additional time to reach attainment on the grounds that a significant cause of the area’s continued nonattainment was pollution generated outside the area and transported into it by prevailing winds. EPA was sued over its failure to bump up five of these areas; in the first three cases decided (Washington, D.C., St. Louis, and Beaumont-Port Arthur, Texas), the agency lost. As a result, EPA has taken steps to reclassify the three areas.

The conference bill would roll back these reclassifications and extend attainment deadlines in areas affected by upwind pollution to the date on which the last reductions in pollution necessary for attainment in the downwind area are required to be achieved in the upwind area. While this date might vary, it would appear to be 2004, 2005, or 2007 in most areas affected by the current standard. The language in the conference bill may give EPA flexibility to extend the deadlines beyond those dates, however, and it would also apply to the agency’s new standard for average ozone levels during an eight-hour period. Deadlines for attainment of the 8-hour ozone standard have not yet been established, so it is difficult to say how this section might affect them.

Section 1444: Energy Production Incentives

Congress may regulate interstate commerce under Article 1, Section 8, Clause 3 (the Commerce Clause) of the Constitution. The states may not unduly burden interstate commerce even in the absence of federal regulation. However, Congress may expressly authorize the states to take an action that would otherwise be an unconstitutional burden on interstate commerce. State tax incentives that offer benefits solely to energy produced within the state may, depending on their design, raise constitutional concerns. The conference bill would expressly authorize the states to offer certain tax incentives that may otherwise be an impermissible burden on interstate commerce. Under the bill, the states would be allowed to provide tax incentives for the in-state production of (1) electricity from in-state coal burned at a power plant using clean coal technology, (2) electricity from renewable sources, and (2) ethanol.

Section 1445: Use of Granular Mine Tailings

This section, which was added in conference, amends the Solid Waste Disposal Act (SWDA, 42 U.S.C. 6961 et seq.) and affects only the Tar Creek Mining District. Located in northeastern Oklahoma, Tar Creek is a former lead and zinc mining area of approximately 40 square miles and is one of the largest Superfund hazardous waste cleanup sites. The mine tailings (residue, referred to as “chat”) are deposited in hundreds of piles and ponds in the area, and contain lead and other heavy metals. Residential communities are located among the piles, some of which are nearly 200 feet high, and approximately 25% of the children living on the site have elevated lead concentration levels in their blood, according to a March 2000 EPA report.¹⁴

The conference bill would direct the EPA Administrator to establish criteria for the safe and environmentally protective use of the granular mine tailings for cement or concrete projects, and for federally funded highway construction projects. The criteria would include an evaluation of whether to establish numerical standards for the concentration of lead and other hazardous substances in the tailings, and EPA would be required to consider their current and past use as an

¹⁴ U.S. EPA, Region 6, *Five-Year Review: Tar Creek Superfund Site, Ottawa County, Oklahoma*, March 2000, p. 6.

aggregate for asphalt, as well as the environmental and public health risks and benefits of their use in transportation projects.

Title XV—Ethanol and Motor Fuels

Subtitle A — General Provisions

Section 1501: Renewable Content of Motor Vehicle Fuel

Section 1501 would require the use of renewable fuel in gasoline. Renewable fuels include ethanol, biodiesel, and natural gas produced from landfills and sewage treatment plants. The conference report would require the use of 3.1 billion gallons of renewable fuel in 2005, increasing to 5.0 billion gallons in 2012. After 2012, the percentage of renewable fuel in gasoline would be required to equal the percentage in 2012. The Environmental Protection Agency would be required to promulgate regulations for the generation and trading of credits between entities; in this manner refiners and blenders who could not meet the requirement would be able to purchase credits from those refiners or blenders who exceeded their requirement.

This provision is similar to provisions in the House and Senate versions of H.R. 6. The House version, however, would have required only 2.7 billion gallons in 2005, increasing to 5.0 billion gallons in 2015. The Senate version would have required 2.3 billion gallons in 2004, increasing to 5.0 billion gallons in 2012. Ethanol production was approximately 2.1 billion gallons in 2002.

Policy Context

The Clean Air Act Amendments of 1990 established the Reformulated Gasoline (RFG) program. Among its provisions is a requirement that RFG contain oxygen. The two main ways to meet the requirement are the use of MTBE and ethanol. However, MTBE (methyl tertiary butyl ether) has been found to contaminate groundwater, and there is interest in banning the substance (see Sec. 1504). Because some states have acted to limit the use of MTBE, and because of the potential federal ban, there is interest in eliminating the oxygen standard as well (see Sec. 1506).

The ethanol industry has benefitted significantly from the oxygen requirement, and some are concerned about the future of ethanol in the absence of the requirement. Further, proponents of the fuel see ethanol use as a way to limit petroleum consumption and dependence on foreign oil. Thus, the interest in establishing a renewable fuels standard. However, opponents of ethanol have raised concerns that the fuel is too costly, that the efficiency of the ethanol fuel cycle is questionable, and that the potential for groundwater contamination by ethanol-blended fuels has not been fully studied.

Section 1502: Fuels Safe Harbor

This section would provide a “safe harbor” for renewable fuels and fuels containing MTBE (i.e., such fuels could not be deemed defective in design or manufacture by virtue of the fact that they contain renewables or MTBE). The effect of this provision would be to protect anyone in the product chain, from manufacturers to retailers, from liability for cleanup of MTBE and renewable fuels or for personal injury or property damage based on the nature of the product (a legal approach that has been used in California to require refiners to shoulder liability for MTBE cleanup). Were liability for manufacturing and design defects ruled out, plaintiffs would need to demonstrate negligence in the handling of such fuels to establish liability—a more difficult legal standard to meet.

The conference version provides a safe harbor for renewable fuels, MTBE, and fuels containing them, as did the House bill. The Senate bill did not include MTBE, or fuels containing it, in the safe harbor. The conference version also differs from the House- and Senate-passed bills in setting an effective date of September 5, 2003, for the safe harbor, rather than the date of enactment. This effective date would protect oil and chemical industry defendants from defective product claims in about 150 lawsuits that were filed in 15 states after that date.

Section 1502 (1503): MTBE Transition Assistance

This section would amend the Clean Air Act to authorize \$2 billion (\$250 million in each of FY2005-FY2012) for grants to assist merchant U.S. producers of MTBE in converting to the production of other fuel additives (including renewable fuels), unless EPA determines that such fuel additives may reasonably be anticipated to endanger public health or the environment. Both the House and Senate versions of the bill authorized a smaller program (\$750 million). Appropriations would remain available until expended.

Sections 1503-1504 (1504-1505): Ban on the Use of MTBE

The use of MTBE in motor vehicle fuel would be prohibited after December 31, 2014, except in states that specifically authorize its use. In the Senate version of the bill, a ban would have been implemented four years after the date of enactment; there was no ban in the House bill. EPA could allow MTBE in motor vehicle fuel in quantities up to 0.5% in cases the Administrator determines to be appropriate (**Sec. 1503 (1504)**). The bill would also allow the President to make a determination, not later than June 30, 2014, that the restrictions on the use of MTBE should not take place. The National Academy of Sciences would conduct a review of MTBE's beneficial and detrimental effects on environmental quality or public health or welfare, including costs and benefits by May 31, 2014 (**Sec. 1504 (1505)**).

Section 1505 (1506): Elimination of Oxygen Requirement and Maintenance of Toxic Emission Reductions

This section would amend the Clean Air Act to eliminate the requirement that reformulated gasoline contain at least 2% oxygen. This requirement has been a major stimulus to the use of MTBE. The provision would take effect 270 days after enactment, except in California, where it would take effect immediately upon enactment.

The section would also amend the Clean Air Act to require that each refinery or importer of gasoline maintain the average annual reductions in emissions of toxic air pollutants *achieved* by the reformulated gasoline it produced or distributed in 1999 and 2000. This provision is intended to prevent backsliding, since the reductions actually achieved in those years exceeded the regulatory requirements. A credit trading program would be established among refiners and importers for emissions of toxic air pollutants.

In addition, the section would require EPA to promulgate final regulations to control hazardous air pollutants from motor vehicles and their fuels by July 1, 2004. It would also eliminate the less stringent requirements for volatility applicable to reformulated gasoline sold in northern states, by applying the more stringent standards of VOC¹⁵ Control Region 1 (southern states).

¹⁵ Volatile organic compounds.

Sections 1506-1507 (1507-1508): Analyses and Data Collection

EPA would be required to publish an analysis of the effects of the fuels provisions in the Clean Air Act on air pollutant emissions and air quality, within five years of enactment (**Sec. 1506 (1507)**). DOE would be required to collect and publish monthly survey data on the production, blending, importing, demand, and price of renewable fuels, both on a national and regional basis (**Sec. 1507 (1508)**).

Section 1508 (1509): Reducing the Proliferation of State Fuel Controls

Section 211 of the Clean Air Act allows states to establish their own fuel standards with approval from EPA. The conference report would bar the EPA Administrator from approving a state fuel restriction unless the Administrator, after consultation with the Secretary of Energy, determined that the fuel standard would not cause fuel supply disruptions or adversely affect the ability to produce fuel for nearby areas in other states.

Section 1509 (1510): Fuel System Requirements Harmonization Study

The EPA Administrator and the Secretary of Energy would be required to study all federal, state, and local motor fuels requirements. They would be required to analyze the effects of various standards on consumer prices, fuel availability, domestic suppliers, air quality, and vehicle emissions. Further, they would be required to study the feasibility of developing national or regional fuel standards. This provision is similar to provisions in the House and Senate versions of the bill.

Section 1510 (1511): Commercial Byproducts from Municipal Solid Waste and Cellulosic Biomass Loan Guarantee Program

The Secretary of Energy would be required to establish a loan guarantee program for the construction of facilities to produce fuel ethanol and other commercial byproducts from municipal solid waste and cellulosic biomass. This provision is similar to provisions in the House and Senate versions, except that the House and Senate versions applied only to municipal solid waste (not cellulosic biomass).

Section 1511 (1512): Bioconversion Resource Center

Subsection (b) would authorize \$4 million annually for FY2004 through FY2006 for the development of a resource center at the University of Mississippi and the University of Oklahoma. The center would focus on the development of bioconversion technology using low-cost biomass for the production of ethanol. Subsection (c) would authorize \$25 million annually for FY2004 through FY2008 for research, development, and implementation of renewable fuel production technologies in states with low ethanol production.

Section 1512 (1513): Cellulosic Biomass and Waste-Derived Ethanol Conversion Assistance

The conference report would allow the Secretary of Energy to provide grants for the construction of ethanol plants. To qualify, the ethanol must be produced from cellulosic biomass, municipal solid waste, agricultural waste, or agricultural byproducts. A total of \$750 million would be authorized for FY2004 through FY2006. Neither the House nor the Senate version contained any similar provision.

Section 1513 (1514): Blending of Compliant Reformulated Gasolines

This provision would allow reformulated gasoline (RFG) retailers to blend batches with and without ethanol as long as both batches were compliant with the Clean Air Act. In a given year, retailers would be permitted to blend batches over any two 10-day periods in the summer months. Currently, retailers must drain their tanks before switching from ethanol-blended RFG to non-ethanol RFG (or vice versa). The House and Senate versions contained no similar provision.

Subtitle B—Underground Storage Tank Compliance

Sections 1521-1533: Underground Storage Tank Provisions

Title XV, Subtitle B, would make extensive amendments to Subtitle I of the Solid Waste Disposal Act, to enhance the leak prevention and enforcement provisions of the federal underground storage tank regulatory program, and to broaden the allowable uses of the Leaking Underground Storage Tank (LUST) Trust Fund. The conference report essentially incorporates the language of H.R. 3335, the Underground Storage Tank Compliance Act of 2003, which shares many similarities with Senate-passed S. 195. The provisions would add new tank inspection (**Sec. 1523**) and operator training requirements (**Sec. 1524**); prohibit fuel delivery to ineligible tanks (**Sec. 1527**); expand underground storage tank (UST) compliance requirements for federal facilities (**Sec. 1528**); and require EPA, with Indian tribes, to develop and implement a strategy to address releases on tribal lands (**Sec. 1529**).

The provisions also would authorize states to use funds from the LUST Trust Fund to help UST owners or operators pay the costs of remediating tank leaks in cases where the cost of cleanup would significantly impair the ability of the owner or operator to continue in business (**Sec. 1522**). EPA and states also would be authorized to use LUST funds to remediate oxygenated fuel contamination (**Sec. 1525**) and conduct inspections and enforce federal and state UST release prevention and detection requirements (**Sec. 1526**).

Section 1531 would authorize LUST Trust Fund appropriations of \$200 million annually, FY2004 through FY2008, for remediating tank leaks generally, and another \$200 million annually for the same period for responding to leaks containing methyl tertiary butyl ether (MTBE) or other oxygenated fuel additives (e.g., ethanol). (Other MTBE-related provisions are discussed above in Subtitle A.) Conforming and technical amendments are also included (**Secs. 1532-1533**).

The House version of H.R. 6 would have authorized the use of \$850 million from the LUST Trust Fund for cleaning up underground storage tank leaks of fuels containing oxygenates (e.g., MTBE and ethanol). The Senate version of H.R. 6 proposed to authorize the appropriation of \$200 million from the Trust Fund for cleaning up MTBE and other ether fuel contamination (from tanks and other sources). The Senate bill also would have authorized the use of LUST funds for enforcing the UST leak prevention program, and authorized new research and technical assistance programs.

Title XVI—Studies

Section 1601: Study on Inventory of Petroleum and Natural Gas Storage

The Secretary of Energy would have to report to Congress within a year of enactment on the amount of storage capacity for petroleum and natural gas. While the oil and gas industry is

subject to broad reporting requirements under a variety of laws, this language would call for a comprehensive study of the nation's storage capability and the role it plays in the marketplace. The relationship between storage capacity and price volatility could be significant in the current context of oil and natural gas markets—which are experiencing another winter price spike.

Section 1602: Natural Gas Supply Shortage Report

Within six months of enactment, the Secretary of Energy would be charged with preparing a report on natural gas supply and demand. The report should contain recommendations on policies that would maintain the supply-demand balance in a growing market to provide reasonable and stable prices, encourage energy conservation and development of alternative energy sources, reduce pollution, and improve access to domestic natural gas supplies.

Section 1603: Split-Estate Federal Oil and Gas Leasing and Development Practices

The Secretary of the Interior would conduct a review of how management practices by federal subsurface oil and gas development activities affect privately owned surface users. The review would detail the rights and responsibilities of surface and subsurface owners, compare consent provisions under the Surface Mining Control and Reclamation Act of 1977 with provisions for oil and gas development, and make recommendations that would address surface owner concerns.

Section 1604: Resolution of Federal Resource Development Conflicts in the Powder River Basin

The Secretary of the Interior would report to Congress on plans to resolve conflicts between development of coal and coalbed methane in the Powder River Basin.

Section 1605: Study of Energy Efficiency Standards

DOE would be directed to have the National Academy of Sciences study whether the goals of energy efficiency standards are best served by focusing measurement at the site (energy end-use) or at the source (the full fuel cycle). This provision relates to a previous Executive Order, which found that federal agencies should get credit toward meeting energy efficiency goals even where “source energy use declines but site energy use increases.”¹⁶

Section 1606: Telecommuting Study

DOE would be directed to study and report on the energy conservation potential of widespread adoption of telecommuting by federal employees. In this effort, DOE would be required to consult with the Office of Personnel Management, General Services Administration, and National Telecommunications and Information Administration.

Section 1607: LIHEAP Report

The Department of Health and Human Services (HHS) would be directed to report on how the Low-Income Home Energy Assistance Program could be used more effectively to prevent loss of

¹⁶ Executive Order 13123. DOE's Federal Energy Management Program (FEMP) discusses this issue in its *Guidance for Providing Credit Toward Energy Efficiency Goals for Cost-Effective Projects Where Source Energy Use Declines But Site Energy Use Increases*, April 26, 2000, 4 pp.

life from extreme temperatures. In this effort, HHS would be directed to consult with state officials.

Section 1608: Oil Bypass Filtration Technology

DOE and EPA would be required to jointly study the benefits of oil bypass filtration technology in reducing demand for oil and protecting the environment. This study would include consideration of its use in federal motor vehicle fleets and an evaluation of products and manufacturers.

Section 1609: Total Integrated Thermal Systems

DOE would be directed to study the potential for integrated thermal systems to reduce oil demand and to protect the environment. Also, DOE would study the feasibility of using this technology in Department of Defense and other federal motor vehicle fleets.

Section 1610: University Collaboration

DE would be directed to report on the feasibility of promoting collaboration between large and small colleges through grants, contracts, and cooperative agreements for energy projects. DOE would also be directed to consider providing incentives for the inclusion of small colleges in grants, contracts, and cooperative agreements. This provision was in the House bill.

Section 1611: Reliability and Consumer Protection Assessment

Within five years of enactment, and every five years thereafter, FERC would be required to assess the effects of electric cooperative and government-owned utilities' exemption from FERC ratemaking regulation under section 201(f) of the Federal Power Act. If FERC found that the exemption resulted in adverse effects on consumers or electric reliability, FERC would be required to make recommendations to Congress.

Table I. Authorizations in H.R. 6 Conference Report and S. 2095

(in millions of dollars)

In this table, text in italics indicates subcategories. Changes made by S. 2095 are in bold.

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
TITLE I	—ENERGY EFFICIENCY									
Subtitle A	—Federal Programs									
Sec. 101	Energy & water saving measures in congressional buildings	\$2.0	\$2.0	\$2.0	\$2.0	\$2.0	\$10.0	—	—	\$10.0
Sec. 108	Advanced Building Efficiency Testbed	6.0	6.0	6.0	—	—	18.0	—	—	18.0
Subtitle B	—Energy Assistance and State Programs									
Sec. 121	Low-income Home Energy Assistance Program (funding as listed plus \$2 billion each for FY02 & FY03)	3,400.0	3,400.0	3,400.0	—	—	10,200.0	—	—	10,200.0
Sec. 122	Weatherization Assistance	325.0	400.0	500.0	—	—	1,225.0			1,225.0
Sec. 123	State energy programs	100.0	100.0	125.0	—	—	325.0	—	—	325.0
Sec. 124	Energy-efficient appliance rebate programs	50.0	50.0	50.0	50.0	50.0	250.0			250.0
Sec. 125	Energy-efficient public buildings	30.0	30.0	30.0	30.0	30.0	150.0			150.0
Sec. 126	Low income community energy efficiency pilot program	20.0	20.0	20.0	—	—	60.0	—	—	60.0
TITLE II	—RENEWABLE ENERGY									
Subtitle A	—General Provisions									
Sec. 201	Assessment of renewable energy resources	10.0	10.0	10.0	10.0	10.0	50.0	—	—	50.0
Sec. 202	Renewable energy production incentive (ss for FY03 - FY23)	ss	ss	ss	ss	ss	ss	ss	ss	ss
Sec. 204	Insular areas energy security	5.0	5.0	5.0	5.0	5.0	25.0	5.0	20.0	50.0
Sec. 205	Use of photovoltaic energy in public buildings									
	Photovoltaic Energy Commercialization Program	50.0	50.0	50.0	50.0	50.0	250.0	—	—	250.0
	Photovoltaic Systems Evaluation Program	10.0	10.0	10.0	10.0	10.0	50.0			50.0
Sec. 206	Grants to improve the commercial value of forest biomass for energy (funding as listed plus \$50 million for FY14)	50.0	50.0	50.0	50.0	50.0	250.0	50.0	200.0	500.0
Subtitle C	—Hydroelectric									

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
Sec. 241	Hydroelectric production incentives	10.0	10.0	10.0	10.0	10.0	50.0	10.0	40.0	100.0
Sec. 242	Hydroelectric efficiency improvement	10.0	10.0	10.0	10.0	10.0	50.0	10.0	40.0	100.0
TITLE III	—OIL AND GAS									
Subtitle A	—Petroleum Reserve and Home Heating Oil									
Sec. 301	Permanent authority to operate the Strategic Petroleum Reserve and other energy programs	—	—	—	—	—	—	—	—	ss ^a
Subtitle B	—Production Incentives									
Sec. 318	Orphaned and abandoned oil and gas well program Total	—	25.0	25.0	25.0	25.0	100.0	25.0	—	125.0
	<i>Specifically allocated amount within total:</i>									
	<i>Technical assistance program for non-federal land</i>	—	5.0	5.0	5.0	5.0	20.0	5.0	—	25.0
Sec. 322	Preservation of geological and geophysical data	30.0	30.0	30.0	30.0	30.0	150.0	—	—	150.0
Sec. 324	Assessment of dependence of State of Hawaii on oil	—	—	—	—	—	—	—	—	ss ^a
Subtitle C	—Access to Federal Land									
Sec. 343	Management of Federal oil and gas leasing programs	60.0	60.0	60.0	60.0	—	240.0	—	—	240.0
Subtitle D	—Alaska Natural Gas Pipeline									
Sec. 383	Alaska pipeline construction training program	—	—	—	—	—	—	—	—	20.0 ^a
TITLE IV	—COAL									
Subtitle A	—Clean Coal Power Initiative									
Sec. 401	Authorization of appropriations	200.0	200.0	200.0	200.0	200.0	1,000.0	200.0	600.0	1,800.0
Subtitle B	—Clean Power Projects									
Sec. 411	Coal technology loan	—	—	—	—	—	—	—	—	125.0 ^a
Sec. 416	<i>Electron scrubbing demonstration (allocation from DOE funds)</i>	—	—	—	—	—	—	—	—	5.0 ^a
Subtitle D	—Coal and Related Programs									
Sec. 441	Clean air coal program									
	Pollution control projects	—	300.0	100.0	40.0	30.0	470.0	30.0	—	500.0
	Generation projects	—	—	150.0	250.0	250.0	650.0	250.0	600.0	1,500.0
TITLE V	—INDIAN ENERGY									

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
Sec. 503	Indian Energy									
	Indian tribal energy resource development, Dept. of Interior program (ss for FY2004 - FY2014)	ss	ss	ss	ss	ss	ss	ss	ss	ss
	Dept. of Energy, Indian energy education, planning, & mgmt. asst. program (funding as listed plus \$20 million for FY2014)	20.0	20.0	20.0	20.0	20.0	100.0	20.0	80.0	200.0
	Tribal energy transmission & resource development and related business agreements (ss for FY2004 - FY2014)	ss	ss	ss	ss	ss	ss	ss	ss	ss
	Federal Power Marketing Administrations	—	—	—	—	—	—	—	—	0.8 ^a
	Wind & hydropower feasibility study	—	—	—	—	—	—	—	—	0.5 ^a
TITLE VI	—NUCLEAR MATTERS									
Subtitle B	—General Nuclear Matters									
Sec. 622	NRC training program	1.0	1.0	1.0	1.0	1.0	5.0			5.0
Sec. 628	Decommissioning pilot program	—	—	—	—	—	—	—	—	16.0 ^a
Sec. 631	Cooperative R&D and special demonstration projects for the uranium mining industry.	10.0	10.0	10.0			30.0			30.0
Subtitle C	—Advanced Reactor Hydrogen Cogeneration Project									
Sec. 655	Authorization of appropriations.									
	(a) R&D and design programs	35.0	150.0	150.0	150.0	150.0	635.0	ss	ss	635.0
	(b) Construction	—	—	—	—	—	—	—	—	500.0 ^a
Subtitle D	—Nuclear Security									
Sec. 668	Authorization of appropriations for this subtitle	—	—	—	—	—	—	—	—	ss ^a
TITLE VII	—VEHICLES AND FUELS									
Subtitle B	—Hybrid Vehicles, Advanced Vehicles & Fuel Cell Buses									
Sec. 724	Authorization of appropriations for advanced vehicles (secs.721-723)	—	—	—	—	—	—	—	—	200.0 ^a
Sec. 731	Fuel cell transit bus demonstration	10.0	10.0	10.0	10.0	10.0	50.0			50.0
Subtitle C	—Clean School Buses									
Sec. 742	Replacement of certain school buses with clean school buses	—	45.0	65.0	90.0	ss	200.0	ss	—	200.0

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
Sec. 743	Diesel retrofit program	—	20.0	35.0	45.0	ss	100.0	ss	—	100.0
Sec. 744	Fuel cell school buses for FY04 - FY06	—	—	—	—	—	—	—	—	25.0 ^a
Subtitle D	—Miscellaneous									
Sec. 751	Railroad efficiency	—	25.0	35.0	50.0	—	110.0	—	—	110.0
Sec. 755	Conserve by Bicycling Program.	—	—	—	—	—	—	—	—	6.2 ^a
Sec. 756	Reduction of engine idling of heavy-duty vehicles ¹	19.5	30.0	45.0	—	—	94.5	—	—	94.5
Sec. 757	Biodiesel engine testing program	5.0	5.0	5.0	5.0	5.0	25.0	—	—	25.0
Subtitle E	—Automobile Efficiency									
Sec. 771	Implementation and enforcement of fuel economy standards ²	2.0	2.0	2.0	2.0	2.0	10.0	—	—	10.0
TITLE VIII	—HYDROGEN									
Sec. 809	Authorization of appropriations for this subtitle	273.5	375.0	450.0	500.0	550.0	2,148.5			2,148.5
TITLE IX	—RESEARCH AND DEVELOPMENT									
Subtitle A	—Energy Efficiency									
Sec. 904	Energy Efficiency Total	616.0	695.0	772.0	865.0	920.0	3,868.0	—	—	3,868.0
	<i>Specifically allocated amounts within total:</i>									
	<i>Next Generation Lighting Initiative (sec. 905)</i>	20.0	30.0	50.0	50.0	50.0	200.0	50.0	200.0	450.0
	<i>Secondary Electric Vehicle Battery Use Program (sec. 907)</i>	4.0	7.0	7.0	7.0	7.0	32.0	—	—	32.0
	<i>Energy Efficiency Science Initiative (sec. 908)</i>	20.0	25.0	30.0	35.0	40.0	150.0	—	—	150.0
	<i>Electric Motor Control Technology (sec. 909)</i>	—	2.0	2.0	2.0	2.0	8.0	—	—	8.0
Subtitle B	—Distributed Energy and Electric Energy Systems									
Sec. 911	Distributed energy and electric energy systems Total	190.0	200.0	220.0	240.0	260.0	1,110.0	—	—	1,110.0
	<i>Specifically allocated amount within total:</i>									
	<i>Micro-cogeneration Energy Technology (sec. 914)</i>	20.0	20.0	—	—	—	40.0	—	—	40.0
Subtitle C	—Renewable Energy									
Sec. 918	Renewable energy Total	480.0	550.0	610.0	659.0	710.0	3,009.0	—	—	3,009.0
	<i>Specifically allocated amounts within total:</i>									

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
	<i>Bioenergy (sec. 919)</i>	135.4	155.6	167.7	180.0	192.0	830.7	—	—	830.7
	<i>Concentrating Solar power (sec. 920)</i>	20.0	40.0	50.0	50.0	50.0	210.0	—	—	210.0
	<i>Public Buildings (sec. 922)</i>	30.0	30.0	30.0	30.0	30.0	150.0	—	—	150.0
Subtitle D	—Nuclear Energy									
Sec. 924(a)	Nuclear energy, core programs Total	273.0	355.0	430.0	455.0	545.0	2,058.0	—	—	2,058.0
	<i>Specifically allocated amounts within total:</i>									
	<i>Advanced Fuel Cycle Initiative (sec. 926)</i>	140.0	145.0	150.0	155.0	275.0	865.0	—	—	865.0
	<i>University nuclear science & engineering support (sec. 927)</i>	35.2	44.4	49.2	55.0	60.0	243.7	—	—	243.7
	<i>Alternatives to industrial radioactive sources (sec. 929)</i>	6.0	6.0	6.0	6.0	6.0	30.0	—	—	30.0
Sec. 924(b)	Nuclear infrastructure support (sec. 925(e))	125.0	130.0	135.0	140.0	145.0	675.0	—	—	675.0
Subtitle E	—Fossil Energy									
Part I	Research Programs									
Sec. 931	Fossil Energy Total	530.0	556.0	583.0	611.0	626.0	2,906.0	—	—	2,906.0
	<i>Specifically allocated amounts within total:</i>									
	<i>Fuel cells; improved manufacturing production (sec. 932(b)(2))</i>	28.0	28.0	28.0	28.0	28.0	140.0	—	—	140.0
	<i>R&D for coal mining technologies (sec. 934)</i>	12.0	15.0	20.0	20.0	20.0	87.0	—	—	87.0
	<i>Coal & related technology program (sec. 935)</i>	259.0	272.0	285.0	298.0	308.0	1,422.0	—	—	1,422.0
	<i>Office of Arctic Energy</i>	25.0	25.0	25.0	25.0	25.0	125.0	25.0	75.0	225.0
	<i>Technology transfer (sec. 933)</i>	4.0	2.0	2.0	2.0	2.0	12.0	—	—	12.0
Part II	Ultra-deepwater & Unconventional Natural Resources									
Sec. 949	Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund³	ss [50.0]	ss [50.0]	ss [50.0]	ss [50.0]	ss [50.0]	ss [250.0]	ss [50.0]	ss [200.0]	ss [500.0]
Subtitle F	—Science									
Sec. 951	Science Total	3,785.0	4,153.0	4,618.0	5,310.0	5,800.0	23,666.0	—	—	23,666.0
	<i>Specifically allocated amounts within total:</i>									
	<i>Fusion Energy Sciences (sec.952 & sec. 953)</i>	335.0	349.0	362.0	377.0	393.0	1,816.0	—	—	1,816.0

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
	<i>ITER participation (sec. 952)</i>	12.0	20.0	50.0	75.0	—	157.0	—	—	157.0
	<i>ITER construction (sec. 952)</i>	—	—	—	—	—	—	—	—	ss ^a
	<i>Spallation Neutron Source- construction (sec. 954)</i>	124.6	79.8	41.1	—	—	245.5	—	—	245.5
	<i>Spallation Neutron Source- other (sec. 954) (funds for FY03-FY06)</i>	—	—	—	—	—	—	—	—	103.3 ^a
	<i>Catalysis research and development program (sec. 956)</i>	33.0	35.0	36.5	38.2	40.1	182.8	—	—	182.8
	<i>Nanoscale Science & Engineering Research (sec. 957)</i>	270.0	292.0	322.0	355.0	390.0	1,629.0	—	—	1,629.0
	<i>Research Centers & Major Instrumentation (sec. 957(c))</i>	135.0	150.0	120.0	100.0	125.0	630.0	—	—	630.0
	<i>Genomes to Life Program (sec. 959)</i>	100.0	ss	ss	ss	ss	100.0	—	—	100.0
	<i>Energy-Water Supply Program (sec. 961)</i>	30.0	30.0	30.0	30.0	30.0	150.0	—	—	150.0
Sec. 958	Advanced scientific computing for energy missions	ss	ss	ss	ss	ss	ss	—	—	ss
Subtitle G	—Energy and Environment									
Sec. 964	U. S.—Mexico energy technology cooperation	5.0	5.0	6.0	6.0	6.0	28.0	—	—	28.0
Sec. 965	Western Hemisphere energy alternatives	8.0	10.0	13.0	16.0	19.0	66.0	—	—	66.0
Sec. 966	Waste Reduction and Use of Alternatives									0.5 ^a
Sec. 967	Report on fuel cell test center									0.5 ^a
Sec. 968	Arctic Engineering Research Center	3.0	3.0	3.0	3.0	3.0	15.0	3.0	—	18.0
Sec. 969	Barrow Geophysical Research Facility									61.0 ^a
Subtitle H	—Management									
Sec. 978	Technology infrastructure program	10.0	10.0	10.0	—	—	30.0	—	—	30.0
Sec. 982	DOE Science and Technology Scholarship Program	0.8	1.6	2.0	2.0	2.0	8.4	—	—	8.4
Sec. 984	Small business advocacy and assistance	5.0	5.0	5.0	5.0	5.0	25.0	—	—	25.0
Sec. 989	Educational programs in science and mathematics	40.0	40.0	40.0	40.0	40.0	200.0	—	—	200.0
TITLE XI	—PERSONNEL AND TRAINING									
Sec. 1104	International energy training	1.5	1.5	1.5	1.5	—	6.0	—	—	6.0
TITLE XII	—ELECTRICITY									
Subtitle B	—Transmission Infrastructure Modernization									

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
Sec. 1225	Electric transmission and distribution programs									
	(e) Power Delivery Research Initiative	15.0	20.0	30.0	35.0	40.0	140.0	—	—	140.0
Sec. 1226	Advanced Power System Technology Incentive Program	10.0	10.0	10.0	10.0	10.0	50.0	10.0	10.0	70.0
Subtitle F	—Repeal of PUHCA									
Sec. 1276	Authorization of appropriations									SS ^a
TITLE XIV	—MISCELLANEOUS									
Subtitle A	—Rural and Remote Electricity Construction									
Sec. 1401	Denali Commission, Power Cost Equalization Program	—	5.0	5.0	5.0	5.0	20.0	5.0	10.0	35.0
Sec. 1401	Denali Commission⁴	50.0	50.0	50.0	50.0	50.0	250.0	50.0	50.0	350.0
Subtitle B	—Coastal Programs									
Sec. 1412	Domestic offshore energy reinvestment									
	Secure Energy Reinvestment Fund⁵	500.0	500.0	500.0	500.0	500.0	2,500.0	500.0	2,000.0	5,000.0
	Coastal Energy Impact Fund									SS ^a
	Coastal Restoration and Enhancement through Science and Technology program⁶	10.0	10.0	10.0	10.0	10.0	50.0	10.0	40.0	100.0
TITLE XV	—ETHANOL AND MOTOR FUELS									
Subtitle A	—General Provisions									
Sec. 1503	MTBE merchant producer conversion assistance	—	250.0	250.0	250.0	250.0	1,000.0	250.0	750.0	2,000.0
Sec. 1512(b)	Resource center	4.0	4.0	4.0	—	—	12.0	—	—	12.0
Sec. 1512(c)	Renewable fuel production R&D grants	25.0	25.0	25.0	25.0	25.0	125.0	—	—	125.0
Sec. 1513	Cellulosic biomass & waste-derived ethanol conversion asst.	100.0	250.0	400.0	—	—	750.0	—	—	750.0
Subtitle B	—Underground Storage Tank Compliance (UST)									
Sec. 1531	Authorization of appropriations (from general revenues)									
	Solid Waste Disposal Act, for program activities and administration (except for the activities listed below)	50.0	50.0	50.0	50.0	50.0	250.0	—	—	250.0
Sec. 1531	Authorization of appropriations (from the Leaking Underground Storage Tank (LUST) Trust Fund)									

HR 6 Conf.	Title	FY2004	FY2005	FY2006	FY2007	FY2008	FY2004- FY2008	FY2009	FY2010- 2013	FY2004- FY2013
	Cleanup of leaks from underground fuel tanks, general	200.0	200.0	200.0	200.0	200.0	1,000.0	—	—	1,000.0
	Cleanup of leaks containing oxygenated fuels (e.g. MTBE, ethanol)	200.0	200.0	200.0	200.0	200.0	1,000.0	—	—	1,000.0
	State UST/LUST program implementation & tank inspections	100.0	100.0	100.0	100.0	100.0	500.0	—	—	500.0
	UST leak prevention & program compliance/enforcement	55.0	55.0	55.0	55.0	55.0	275.0	—	—	275.0
	(Total amount authorized from LUST Trust Fund)	555.0	555.0	555.0	555.0	555.0	2,775.0	—	—	2,775.0
	Total Authorized Appropriations	12,135.3	13,905.1	15,008.5	11,548.5	12,076.0	64,673.4	1,428.0	4,440.0	71,496.9

Source: Table prepared by CRS using the text of the Conference agreement of H.R. 6.

Notes: This table shows funding that would be authorized including loans but not loan guarantees under the conference agreement for H.R. 6. The section number in the far left hand column is location in the bill of the authorizing language. When an activity is described a separate section of the bill from where it is authorized, it is indicated in parentheses after the program title in column two.

The fourth column from the right, labeled “FY2004 -FY2008,” provides a five-year subtotal for each line. This column has been included so that amounts may be compared to similar five-year subtotals shown in the authorization tables for the House and Senate bills in CRS Report RL32033, *Omnibus Energy Legislation (H.R. 6): Side-by-side Comparison of Non-tax Provisions*. Items that have been changed in S. 2095 are shown in bold. In the respective column, the old amount is shown in brackets. In the endnotes, details that were dropped from S. 2095 are placed in brackets and new information is in bold.

ss. Such sums as may be necessary.

a. Lump sum. No fiscal year indicated.

Endnotes:

1. Sec. 756. Funds go to the Environmental Protection Agency.
2. Sec. 771. Funds go to the National Highway Traffic Safety Administration in the Department of Transportation.
3. Sec. 949. [Plus up to \$150 million per fiscal year for FY2004 - FY2013 from federal oil and gas leases issued under the Outer Continental Shelf Lands Act (OCS) and the Mineral Leasing Act would be deposited into the fund. Revenues fluctuate year-to-year as a result of oil and gas prices and lease sales.] **This provision was dropped in S. 2095.**
4. Sec. 1401. Denali Commission also would receive up to \$50 million per fiscal for FY2004 - FY2013, [from the federal share of federal oil and gas leases in the National Petroleum reserve in Alaska (NPR-A).] **Funding is now subject to appropriations.**
5. Sec. 1412. [Secure Energy Reinvestment Fund also would be funded from FY2004 to FY2013 by royalties under the Outer Continental Shelf Lands Act.] **An appropriation must be passed before funding may be drawn.**
6. 6. Sec. 1412. [Coastal Restoration and Enhancement would also receive 2% of amount deposited into the Secure Energy Reinvestment Fund per fiscal year.] **An appropriation must be passed before funding may be drawn.**

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